

1878.

New Series.

Vol. XXVII—No. 4.

THE
ECLECTIC
MAGAZINE

OF
FOREIGN LITERATURE

APRIL.

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UNITED STATES OF AMERICA.

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EDITOR

NEW YORK:

E. R. PELTON, PUBLISHER, 25 BOND STREET.

AMERICAN NEWS CO., AND NEW YORK NEWS CO., General Agents.

Terms: Single Numbers, 45 Cents. Yearly Subscription, \$5.



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Green cloth covers for binding two vols. per year, will be furnished at 50 cts. each, or \$1 per year, or sent by mail on receipt of price; and the numbers will be exchanged for bound volumes, in library style, for \$2.50 per year, or in green cloth for \$1.50 per year.

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Eclectic Magazine

OF

FOREIGN LITERATURE, SCIENCE, AND ART.

New Series,
Vol. XXVII., No. 4.

APRIL, 1878.

Old Series Com-
plete in 63 vols.

MARCH OF AN ENGLISH GENERATION THROUGH LIFE.*

THE Annual Report issued by the Registrar-General of Births, Deaths, and Marriages in England is one of the many works performed by official hands of which comparatively little account is taken. Yet the volume always contains much that is valuable, and often much that is really interesting. But the form in which it appears, the long tables of figures, the innumerable columns carefully headed with their separate subjects, the immense mass of details all are sufficient to

turn aside the mere casual reader. And yet it is in the fact of this immense mass of details, combined with their skilful, their scientific arrangement, that the interest of the volume lies. The rise, maintenance, and progression of each generation of our fellow-countrymen is chronicled here, or rather, as each generation is connected by countless links of living interest both with that which precedes it and that which treads on its heels, we can never single out in fact, as we fancy we can in imagination, any one generation from its fellows, and we have laid before us here the gradual developement of the entire population. The volume contains, so far as many points of material welfare are concerned, a history of the maintenance and progress of the English nation. The countless incidents which affect the welfare of the people, the births, the marriages, the deaths, the illnesses, the migrations, the adversity, the prosperity, are all reflected in these pages; marked, not indeed in any startling story, or with any

* 1. *Thirty-eighth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England.* Presented in both Houses of Parliament by command of Her Majesty. London, 1877.

2. *Annual Summary of Births, Deaths, and Causes of Death in London and other large Cities, 1875.* Published by the Authority of the Registrar-General of Births, Deaths, and Marriages in England. London, 1876.

3. *Supplement to the Thirty-fifth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England.* Presented in both Houses of Parliament by command of Her Majesty. London, 1876.

striking connection of incidents, but by the slow and regular aggregation of details; the whole forming a history almost perfect in itself, constructed on the principle of allowing the facts to state themselves, reserving them strictly, truthfully, and completely. Separated from each other, these facts would be valueless, and generally devoid of interest. Collected and compacted together, they preserve a record of what has occurred, of the higher value from the fact that it gives a most honest transcript of what has been. It may be compared to one of those strange preservations of the past which have been found in excavating the relics of Pompeii, where the ashes accompanying the outburst of the volcanic forces which destroyed that doomed city have formed a covering so complete for those who were overwhelmed in the catastrophe, that the shape of every limb of the sufferer, of every fold of the garment, has been retained. Modern investigation pours a liquid and plastic material into the mould thus created, and is startled by recovering the almost life-like image of the once brilliant maiden or the stalwart soldier who succumbed, ages since, before the terrible storm which preserved their forms, as it fixed them, in death.

Almost as complete, almost as minute, is the record of the past preserved by the registration of facts collected by the care of the Registrar-General. The chapter in the Supplement to the Thirty-fifth Annual Report, which narrates the 'March of an English Generation through Life,' gives a picture, vivid by its lively representation, of the various illnesses and accidents which befall the average inhabitant of our island. It commences by singling out, in imagination, a million children from the moment of birth. Of these, some are born feeble, some are early attacked by disease, their frail and immature forms are surrounded by many perils; it will be found that more than a fourth part of the whole number, taking England all over, will have been removed by death before they reach the age of five years. Most of the survivors have been attacked by some sort of disease, or by more diseases than one. Yet increasing strength enables them to withstand better the onslaughts of illness, and less than a seventh part of the number of deaths recorded in the first period of five years is enumerated in the second. The

deaths between the ages of ten and fifteen are fewer than at any other time of life. It is as if the destroying angel looked compassionately, for a few moments, on the weakened numbers of that mighty host, from which he had already exacted so heavy a tribute. At the age from fifteen to twenty the mortality increases again, especially among women; as consumption and childbirth, for a greater proportional number of deaths occur among those who marry at a very early age—alas! that the fair brides wedded in the first sweet bloom of youth should have to suffer thus—make severe havoc in their ranks. At this age the more dangerous occupations of men over those of women begin to show their influence, and fully eight times as many men as women die violent deaths. The number of deaths from violent causes increases in the next five years—from twenty to twenty-five—while, during it, nearly half the mortality is from consumption. From this point onwards the progress of the career of the remainder is only chronicled by the Registrar at intervals of ten years. In the period from twenty-five to thirty-five consumption is again the most fatal disease; most of those who die have already settled into their several avocations, and are fathers and husbands, mothers, and wives. Hence the deaths which occur leave more sorrow and trouble behind them than those which take place at an earlier age. Between thirty-five and forty-five the same conditions continue in the main. The new generation, which is in time to succeed the one whose fate has been the object of inquiry, has now been born. We must not, however, pause to contemplate their career, but must fix our attention on the further progress of the rapidly-thinning ranks whose onward march we have been mentally accompanying. The deaths by consumption still predominate; but the strain of time on the structure of the body has also been great at this age, and many succumb to diseases of the principal organs. The violent deaths at this age continue at much the same quota as at the period when men first begin to enter active life. The period from forty-five to fifty-five is justly marked as being '*nel mezzo del cammin di nostra vita*,' for the million which was surveyed in imagination at the outset has now dwindled down to half that number. The number of deaths

at this age is considerably greater than in the preceding decade. Consumption is still very destructive, and diseases of the brain and diseases of the heart show, by the number of their victims, the effect of the continued strain of wear and tear. 'To the age of fifty-five,' of the million singled out in imagination, to quote from Dr. Farr, from whose remarks the foregoing observations have been condensed, 'near the middle of the possible lifetime of humanity in its present state, 421,115 attain, and from this point of time it is possible to look ahead, and discover the particular rocks, foes, collisions, tempests to be encountered, to be dreaded, or to be weathered by the fleet on its way to the utmost butt of existence, and very sea-mark of its journey's end.'

One thing to remark is, that the rate, the degree of danger which has hitherto increased slowly, now increases at so much faster a pace that, although the number of lives grows less, the number of deaths increases in every one of the next twenty years, and is afterwards sustained for ten years longer, until at last, in the distance, all sink into the elements from which they came.

Of the 100 women living of the age of fifty-five and upwards, it is worthy of note that eleven are spinsters, forty-three widows, and forty-six wives; of 100 men nine are bachelors, twenty-four widowers, and sixty-seven husbands.

To continue the chronicle. At the age of fifty-three the number of men and women surviving becomes equal; but from fifty-five and onward the women exceed the men in number. Between fifty-five and sixty-five the diseases of the lungs, heart, and brain are very fatal to life. Among the men violent deaths are about as common as at the earlier stages. But it is a sad thing to contemplate that suicides are more numerous, the greater number of deaths from that cause, in proportion, occurring at this age. That the cares and troubles of life increase, while vigor and energy decline, probably accounts for this melancholy fact. Between sixty-five and seventy-five the deaths are more numerous than in the ten years previous. By this time the majority of the grandchildren of the generation under consideration have been born, sixty-seven being about the average age of grand-paternity. A second great landmark in the life

of the generation is thus passed. The age of seventy-two is that when the greater number of *men* die. From seventy-five to eighty-five the influence of weather upon health becomes more marked. One would hardly expect to find that, on an average, out of every million born, 161,124 reach the age of seventy-five. But by eighty-five this number has dwindled to 38,565, of whom Dr. Farr calculates that only about 220 reach the age of 100.

Interesting as this chronicle is, recalling as it does to the mind the beautiful story of the 'Vision of Mirza,' it is impossible to read it, any more than it is possible to read that charming allegory, without a feeling of melancholy. One cannot help reflecting on the regrets which must accompany each departure from life—the hopes unaccomplished, the vigor prematurely-cut short, the families dispersed, the histories of pain and sorrow condensed into one brief line of the general statement. One cannot help thinking of the continuous and constantly recurring labors of the father of the family, the life-long exertions, the struggles to make or to maintain his position; of the labors, less seen but none the less arduous, of the mother, holding the household together with the bond of affection which makes the 'house,' the 'home.'

'Und füget zum Guten den Glanz und den
Schimmer,
Und ruhet nimmer.'

It is well to turn from these pages to those which relate the beneficial influences of improvements in the sanitary arrangements in towns. Thus a notable increase of health in Salisbury, gradually but steadily improving during the course of thirty years; in towns circumstanced as differently from Salisbury as Macclesfield and Wisbech, a diminution; and again an increase of mortality in Hull in the same period,—show how possible it is to combat the necessarily injurious influences of overcrowding and unhealthy occupations, if only there is a resolute determination to do so.

A short but very instructive statement in the Report chronicles the different influences which the fact of living in a healthy or an unhealthy district of the country has over the lives of the population. It were natural to expect that in this vast metropolis, with its great density of popula-

tion, its ceaseless wear and tear, with an atmosphere at all times heavily laden with smoke, with an uncertain and trying climate, life should not attain the length which may be expected in the calm quiet of a country home. But the metropolis is far from containing the least healthy portion of the population of England; the death-rates in the district in which Manchester is situated, and still more in the district of which Liverpool is the centre, are very considerably higher. The picture of 'the march of an English generation through life,' given in the preceding pages, would have presented very different and far sadder features had it been one which gave the experiences of an equal number of persons living in Manchester or Liverpool. Not only would fewer have reached maturity, but the deaths at almost every age would have been more numerous, and the comfort of those who did reach the higher ages would have been far more seriously interfered with by disease and suffering.

For it must be ever borne in mind that an excessive mortality at any age of life in a district means far more illness, far more distress, far more want, in that district than in those portions of the country which enjoy better health. The man in any rank of life, who is taken away early, probably leaves behind him those to whom his earnings, his assistance and his care, were most valuable. Had he lived longer he would have been able to provide more completely for his children, who have either to be brought up in the workhouse among all the countless disadvantages of a pauper training, or if they struggle on at home, yet miss continually the help which a parent only can give.

Dr. Farr has an interesting chapter on the pecuniary value of life. A certain amount of expense has to be incurred in any class before a child can attain such an age and such strength that it can earn its own livelihood. It is very difficult to estimate what the expenses of even a careful man who passes through the ordinary University career must have been before he is able to earn anything for himself. Among the lower ranks the problem is simpler, though the facts and the general course of events have, making due allowance for difference in station, a considerable similarity.

'The value of any class of lives is deter-

mined by valuing first at birth, or at any age, the cost of future maintenance; and then the value of the future earnings. Thus proceeding, I found the value of a Norfolk agricultural laborer to be 246*l.* at the age twenty-five; the child is by this method worth only 5*l.* at birth, 56*l.* at the age of five; 117*l.* at the age of ten; the youth 192*l.* at the age of fifteen; the young man 234*l.* at the age of twenty; the man 246*l.* at the age of twenty-five, 241*l.* at the age of thirty, when the value goes on declining to 136*l.* at the age of fifty-five; and only 1*l.* at the age of seventy; the cost of maintenance afterwards exceeding the earnings, the value becomes negative; at eighty the value of the cost of maintenance exceeds the value of the earnings by 41*l.*—*Supplement to the Thirty-fifth Annual Report of the Registrar General*, p. xlii.

A computation of this kind places the value of a population before us in a new light. We see how great the vigor of the productive activity of the inhabitants of these islands must have been which has enabled the British Empire to make such vast strides in material wealth during the last forty years, while parting with so many of the youngest and ablest of the community to colonise other lands, and to carry to them that wealth which their labor would otherwise have been worth to the mother country. This branch of the subject, the pecuniary value of life, naturally leads Dr. Farr to consider the health of men engaged in various occupations. In doing this, Dr. Farr has done full justice to the memory of Bernardo Ramazzini, who first collected, towards the latter half of the seventeenth century, a series of careful observations on the diseases of men engaged in different modes of work in the city of Modena; and different as life on the northern slope of the Apennines is from life in England at the present day, yet the classification made by Ramazzini was so complete, that it has been of great service to modern investigators into the same subject.

To commence with those occupations by means of which food and refreshments are distributed to the rest of the community, it is curious to notice, and contrary, we believe, to the ordinary opinion, that the mortality among butchers is greater than the average rate. This is the case whether the butchers carry on their trade in London or the country. Though butchers out of London enjoy healthier lives than those in London, yet, at all but the earlier ages, whether in the country or in the metropolis, the butcher is a less

healthy man than his compeers. At the earlier ages, from fifteen to twenty-five, the health of butchers, both in London and in the country, is better than that of the rest of the population of the same ages. This appears to show that butchers are selected lives; that is to say, that young, strong, active, and naturally healthy men, pass into this class of occupation by a kind of natural selection, but that as life goes on, and their original vigor declines, the deleterious influences of their calling gradually affect their health. Fishmongers are not more healthy than butchers. But bakers, though this might not have been expected, do not appear to be more unhealthy than the average of their fellow-citizens, except that as they grow older their occupation appears to tell on them. For the class of publicans we shall prefer to quote Dr. Farr's own words.

'The numerous, useful, and as a body respectable men who supply the community with drinks, food, and entertainment in inns, are shown to suffer more from fatal diseases than the members of almost any other known class. They might themselves institute a strict enquiry into its causes. But there can be little doubt that the deaths will be found due to delirium tremens and the many diseases induced or aggravated by excessive drinking. It seems to be well established that drinking small doses of alcoholic liquors, not only spirits, the most fatal of all the poisons, but wine and beer at frequent intervals without food, is invariably prejudicial. When this is carried on from morning till late hours in the night few stomachs—few brains—can stand it. The habit of indulgence is a slow suicide. The many deaths of publicans appear to prove this. Other trades indulge in the publicans' practice to some extent, and to that extent share the same fate. The dangerous trades are made doubly dangerous by excesses.'—*Supplement to the Thirty-fifth Report of the Registrar-General*, p. iv.

The clergy generally, whether of the Established Church, whether Dissenting Ministers or Roman Catholic priests, have, on an average, good health. It is otherwise with the medical profession. The classes which minister to the health of the body have far less healthy lives than the clergy, and up to the age of forty-five experience a mortality much above the average. The hard struggles of life, anxiety as to success, contact with disease, disturbed rest, are among the causes which appear to lead to this result. Chemists and druggists also are less healthy than the average. So also are commercial

clerks, mercers, and drapers. Those engaged in the service of railways likewise experience a high rate of mortality. Coach-makers are a fairly healthy class. Wheelwrights, carpenters, joiners, sawyers, and those who work in wood, have lives healthier than the average of men. The influence of the occupation on health is clearly shown in the case of the blacksmith, who, carrying on his occupation under much the same circumstances as the wheelwright, not necessarily in the towns, but scattered among the villages and hamlets of the country, is nevertheless not so healthy a man as the wheelwright. The health of carvers and of gilders is, on the average, now better than it used to be. But Dr. Farr observes that both the carver and gilder and the plumber and glazier require more protection against the metallic poisons, to the influence of which they are exposed in their several callings. How much may be done by care in these matters is shown in the following sentence:—

'The wool, silk, cotton-manufacturing population no longer experience an exceptionally high mortality. Lord Shaftesbury and his enlightened colleagues must be gratified, if not entirely satisfied, with the success that has crowned their life-long labors. And it is creditable to the mill-owners to find the men and boys in their employ suffering less than many other people in towns.'—*Supplement to the Thirty-fifth Annual Report of the Registrar-General*, p. lvi.

What has been done for the operatives in these branches of manufactures still remains to be done for those who work up the goods which are the produce of their toil. Tailors and shoemakers still need much to be done for their health. Tailors especially are less healthy than the average, and the health of those employed in the earthenware manufacture especially appears to suffer from their occupation.

'At the age of joining it is low; but the mortality after the age of thirty-five approaches double the average; it is excessively high; it exceeds the mortality of publicans. What can be done to save the men dying so fast in the potteries and engaged in one of our most useful manufactures?'—*Supplement to the Thirty-fifth Report of the Registrar-General*, p. lvii.

Mining is also an unhealthy occupation. Some classes of mining are more dangerous than others; but, in the aggregate, miners' lives wear out more rapidly than metal-workers', and both classes are far less healthy than the agricultural laborer.

Out-door occupations, in which there is not an excessive exposure to the vicissitudes of the weather, are beyond doubt the healthiest which a man can undertake. Farmers and agricultural laborers are at the present time among the healthiest classes in the community. For some reason, which is not exactly understood, the young farmer appears to have a less healthy life than the laborer of the same age. But, from the age of thirty-five and upwards, the farmer is the healthier of the two. It is to be hoped that an improvement in the condition of the agricultural laborer may be accompanied by an improvement in his health. The health of the largest class of workers in the community is of vast importance to the well-being of the State.

After reviewing the chances of life among the different classes of the community, Dr. Farr proceeds to consider how great a part of the sufferings which they endure is due to preventable causes. Much may be, and has been, done by the law to promote health, by removing or diminishing the causes from which diseases spring. First among these come the two elements of water and air. Legislation has done much to improve the condition of the laborers in factories and mills, but Dr. Farr insists that much more may still be done to secure a removal of dangerous dusts from flour-mills, cotton-mills, and shops. Vegetable dusts, such as those which are produced in a flour-mill, are injurious to life, but they are much less hurtful than mineral dusts. Still there is every reason to think that their removal would be an advantage to the health of those at present exposed to their influence; but it is probable that it is rather from scientific and mechanical improvements than from legislative action that amelioration in their condition is likely to proceed.

Dr. Farr calls to mind, in speaking of this subject, the Chinese saying which regards the wants of the population as so many 'mouths to be satisfied.' And when we reflect on the millions who inhabit these islands, on their many and varied wants, on the fact that so large a proportion of their food has annually to be imported, and from great distances, it certainly appears a marvellous thing that all the necessities of so many persons can be supplied. The population contains men in work and men out of work, the extremes of life, the infant and those in ex-

treme old age, the sick, the infirm, the incapable; and it speaks a great deal in favor not only of the charity of neighbors, often but little better off than those they assist, but of the manner in which the poor relief of the country is administered, that so few people die of want annually among us. 'The deaths now ascribed in all England directly to privation are at the rate of three every fortnight—seventy-seven annually.' The fact that of these the majority are men, shows that the resolution not to apply for parochial relief is at the bottom of the deaths of many of these sufferers. Otherwise it is obvious that the feeble sex, those who at the best of times are able to earn less, whose powers are more rapidly exhausted, and who form considerably more than half the old folks of the country, would, if unassisted by extraneous relief, die from want in the greater numbers of the two. 'Without the institution of poor relief—imperfect it may be, but still admirable and English—the deaths from starvation would, amidst all the chances of life, badness of seasons, the fluctuations of trade, amount to thousands a year.'*

The deaths from want and privation touch the heart deeply, and it is only right they should. When one compares the boundless affluence of some members of the community, possessors of wealth sufficient to gratify every fancy, every inclination, every wish of its owner, with the abject want of those unable to procure even the bare necessities needed to sustain life in the roughest and humblest manner, it seems incredible that any persons should be allowed to die of sheer want in this wealthy land; and, doubtless, if the necessities of the sufferers had but been known they would have been supplied. But the dulling effects of poverty, added to a reluctance to parade distress, in some cases account for the fact that no application has been made for assistance. And it is as well to turn to the other side of the picture. Those whose death is ascribed by the Registrar-General to excess in food greatly exceed in number those who die from want. And this number shows a far larger proportion. 'Though their numbers are fewer, the deaths of the wealthy and their servants ascribed to gout greatly

* Supplement to Thirty-fifth Annual Report of the Registrar-General, p. lxi.

exceed the deaths of the poor from starvation. The deaths by gout are nearly six weekly, 299 annually.' Dr. Farr does not ascribe all these deaths to actual excesses in food, but to untoward combinations. There may be some hereditary predisposition besides actual excess in food and drink. And yet these deaths are but a small part of those which are properly to be ascribed to excess. If there are, as there must be, many more than those who actually succumb from hunger, whose lives have been shortened and rendered unhealthy by privation, on the other hand those whose constitutions have been sapped, and whose deaths have been accelerated by excesses, must be many more indeed than those registered as due to gout. Could an accurate statement be drawn up of all the illness, all the misery which is caused by excess, the suffering caused by it would greatly exceed that induced in this country by want alone.

The relations which exist between the rate of increase of the population and the rate of mortality deserve careful attention. It is possible in some degree to influence for better or for worse the rate of mortality among the population, and it is certainly one of the most remarkable instances of the controlling force of man over the powers of nature to find that by legislative enactments, and by scientific adaptation of means to the desired ends, it lies within his power to influence, not only the happiness, but the length of life of his fellow-creatures. The birth-rate is under control likewise, but not of the same description. 'A flow of prosperity in the country is immediately followed and marked by the launch of a whole fleet of marriages. The ruin of an industry or the depression of a trade implies a stagnation of marriages. There are thousands of couples always on the look-out, ready to embark as the prospects brighten.' And the numbers of marriages, and the consequent numbers of births, influence the death-rate in more ways than one. If the various districts of England are arranged in order, from those in which the death-rate is least to those in which it is greatest, it is found that the mortality increases with a very constant regularity in proportion to the density of the population. Hence as the numbers thicken, the demands on those numbers also increase. Every additional birth is met by an addi-

tional death. The birth-rate has, under any but very unhealthy circumstances, slightly the advantage over the death-rate; but in those districts which are very densely peopled, the increase of the population goes on slowly when it becomes closely aggregated. The population may even under these circumstances tend to diminish. In Liverpool the population would not be kept up in numbers, far less would it increase, if it were not for continual immigration, which supplies fresh blood to fill the gaps made by the unhealthy circumstances which prevail in that town. Such districts are rare in England; but there are a good many instances in which the rate of increase among the population has declined as that population has increased in density. This forms a curious commentary on the balance between advance and retrogression which accompanies the apparent prosperity of a district. The stability of the rate of increase is thus promoted by the fact that the augmentation of numbers brings with it a diminution in the rate of progress.

The improvements which have been made of recent years in official registration have been of service also in other ways than in tracing the progress of disease. Considerable light is also thrown on the condition of the body politic by their means. Thus the remarkable fact that emigrants have returned to this country in such great numbers of recent years, has been traced out clearly by the care which has been bestowed on registration. There is no country in Europe probably in which emigration, and immigration also, have so great an effect on the condition of the people as in England. Emigration plays a great part in influencing the demand for labor, and the number of those who have returned to this country, especially from America, shows how severe the recent crisis in that country must have been, and also that, notwithstanding the dense crowding of the population here, and the intensity of the struggle for life, yet the greater wealth, resulting in the more abundant appliances for production in this country, goes a long way to make up for the more abundant natural advantages of other lands.

Other curious points connected with the social condition of the people are recorded in the Report. It appears that during the last thirty years women have been mar-

ried in England on an average at younger ages than they used to be—that is to say, women are married now at earlier ages than their mothers and probably their grandmothers were. At the present time not much short of a quarter of the brides in England are married under the age of twenty-one. This, beyond doubt, shows a considerable improvement in the condition of the people. And it is satisfactory to find that, while the birth-rate has continued at much the same average, the number of children born in wedlock has progressively increased.

The mortality of unmarried men continues above the average. This may be ascribed in part to the want of the comforts of home; but it is also probably due to the fact that it is rather the weakly men who do not marry. The proportion of those who have signed the marriage-registers in writing has greatly increased of late years. And the increase among those who are able to write their own names has been considerably greater among the women than among the men. Thirty or five-and-thirty years ago, though education was generally very backward, it was undoubtedly more backward among the girls than among the boys in England. There are still fewer women able to write their names on their marriage-day than men. But the spread of education throughout the country will rapidly show itself in this direction. It appears that marriages by banns rather than by licenses are considerably on the increase in England. Beyond doubt the arrangements for marriages by banns give facilities for clandestine marriages in large towns. The number of names read out, the want of clearness in the reader, render it difficult to trace a name among the multitude. The Registrar-General observes in his Report for this year that 'the banns of 99 couples have been published in the church of St. Pancras, of 125 couples in St. Mary's, Lambeth, of 202 couples in the Cathedral Church of Manchester on one Sunday; in many cases the names being merely mentioned, unaccompanied with any announcement of condition, whether bachelor, widow, &c., and in many cases no searching inquiry having been made as to previous actual residence in the parish, or as to consent of parents in case of minors. Nor is the banns-book accessible and open to the public.' The Registrar-

General very naturally compares this state of matters with the care taken to prevent illegal marriages by the Registrars. Instances, no doubt, take place in which these safeguards are broken through: and the following extract from the Report is suggestive of the necessity of more stringent regulations being established:—

'With respect to marriages by license in the Established Church, no interval, during which inquiry may be made by parents or guardians or relatives, is necessary between the application for the granting of a license and the solemnization of the marriage; a clergyman holding the office of surrogate, after administering to one of the parties to be married the oath that there is no legal impediment, may grant a license for a marriage in his own church, which he may himself in a few minutes be called upon to celebrate.

'Some years ago two persons called at a church in London at 10.30 A.M. requiring to be married immediately, but producing no license; they were told at the church that by going to Doctors' Commons they might obtain a license and be married that morning. They went accordingly, returned with the license, and were married before twelve o'clock that same day.'—*Thirty-eighth Annual Report of the Registrar-General*, p. xvi.

It is worth remark that in 1875 the mortality throughout the country was high—while the birth-rate was low. The temperature of the year was exceedingly variable. Though the winter generally was very severe, yet it was broken by periods of warmer weather. These sudden alternations of temperature proved fatal to many persons, especially to those who were beyond the prime of life, while very young children also suffered from these influences in a similar manner. These vicissitudes of temperature appear to have influenced health all over the country, and they show the manner in which the forces of nature will exert their sway, notwithstanding all that man can do to shield himself from their power. Yet, as has been related, much has been done, and much more may be done. The Registrar-General's Report for 1877 mentions, among other matters, the way in which a watch can be, and has been, kept over some of those districts in which the mortality of the population has been shown to be above the average. Eighteen districts were selected in this manner. They were chosen because the annual rate of mortality was shown to have been higher in them for the ten years, from 1861 to 1870, than in the previous ten years. And

special inquiries were made in these districts as to the reasons why the health of the population had retrograded in them. The Report states, with regard to these inquiries: 'For most of the particulars relating to the hygienic conditions of these eighteen districts, I am indebted to the courtesy of the respective Medical Officers of Health of the urban and rural sanitary areas which are situated in these registration districts.* Now, investigations of this description are very important things. If the health of any district has suffered through the incomplete character of the sanitary works within it, through the fact that these works have been tardily or imperfectly carried on, or are insufficient to keep up with the increase of the population, the results of the inquiry should be made public in very distinct manner. The health of any population is most closely bound up with its well-being. And it is a very important thing for a place to know whether or not its population is more or less healthy than other populations similarly situated in other parts of the country; and further, whether, if it is less healthy, this fact proceeds from causes which are, or are not, preventable. Information of this description would stimulate the exertions of the local Officers of Health, and would stimulate, too, the local authorities who are charged with carrying out sanitary works in the exercise of their duties.

While feeling that the Registrar-General has only been performing his duty in requiring the medical officers, in those districts throughout the provinces in which the mortality has been for a considerable time above the average, to supply him with a statement of the causes likely to affect the public health within their boundaries, it is worth noticing, that matters requiring, but not receiving, attention at least as close, occur continually in London itself. When we say requiring, but not receiving, attention, we do not in the least mean to infer that these matters fail to receive the attention of the Registrar-General himself, but that all that lies in his power to do is to report on them. The power of action does not lie, with regard to such subjects, in his hands, and consequently when he has reported he has done all that is in his power to do. We refer at

this point to the quality of the water supplied by the Metropolitan Water Companies. An analysis of the water furnished by the different Companies forms part of the regular Reports of the Registrar-General. This analysis is based on a chemical examination conducted at the present time by Professor Frankland of the Royal College of Chemistry. It is impossible to give here a complete description of the very careful statement which Professor Frankland periodically draws up, but space may be found for a few of the leading points in it. There are eight Companies which supply London with water, but of these, the historic venture of Sir Hugh Myddelton, the 'New River Company,' and the more modern 'East London Company,' are considerably the largest, and furnish between them not much less than the half of all the water which is used, and considerably more than half what is used in the great mass of London which lies north of the Thames. To show, if there is any need, that the complaints are not of recent standing, we will take the Report of the condition of the water supplied in the year 1875. That Report contains what may be aptly termed a historic statement of the quality of the water for the eight years previous. The following statement occurs in it:—

'The water both of the Thames and Lea has again suffered marked deterioration during the past year, whilst that from deep wells in the chalk has slightly improved. Notwithstanding the application of partial remedies for sewage pollution at Banbury, Eton, and Windsor, and the greater care exercised by most of the Companies in the storage and filtration of the water, the organic pollution contained in the Thames water delivered in London, though subject to fluctuations from the greater or less prevalence of floods, does not diminish.

'Taking the mean proportion of organic impurity in the Thames water delivered in London in 1868 as 1000, I find that in subsequent years down to 1875 inclusive, the following proportions were present.

Year.	Proportion of Organic Impurity present in Thames Water as delivered in London.
1868.....	1000
1869.....	1016
1870.....	795
1871.....	928
1872.....	1243
1873.....	917
1874.....	933
1875.....	1030

* 'Thirty-eighth Annual Report of the Registrar-General,' p. xxxiii.

The maximum organic pollution in the water drawn from the Thames occurred in January, February, March, August, and November, when the river was in a very objectionable condition. Of the five Companies drawing from this river the West Middlesex Company delivered the best, and the Lambeth Company the worst water.

The most serious pollution of the Lea occurred in the months of January, February, August, November, and December, but the worst water delivered by the New River Company during these months was much superior to that procured from the Thames.

Taking, as before, the mean proportion of organic impurity in the Thames water supplied to London in 1868 as 1000, I find in that and subsequent years, down to 1875 inclusive, the following proportions in the Lea water delivered by the New River and East London Companies:—

Year.	Proportion of Organic Impurity present in Lea Water as delivered in London.
1868.....	484
1869.....	618
1870.....	550
1871.....	604
1872.....	819
1873.....	693
1874.....	583
1875.....	751

'The water of the Lea, therefore, appears to be progressively, though irregularly, deteriorating in quality, but it is still much superior to that of the Thames.'—*Annual Summary of Births, Deaths, and Causes of Death in London and other large Cities*, 1875. Published by the authority of the Registrar General, p. xxxv.

The water supplied by the New River and East London Companies is, it will be observed, among the best in quality which is furnished to the inhabitants of London. The Kent Company, which derives its water from deep wells sunk in the chalk, supplies a class of water which is infinitely purer than that obtained either from the Thames or from the River Lea. As the Report continues, 'the water of the Thames and the Lea is, at its source, as free from pollution as the chalk-well water; but in its downward course the river-water becomes largely contaminated by sewage and the washings of cultivated land, and especially so in winter.' It might be possible, therefore, to obtain much purer water both from the Thames and Lea. It is beyond our province to follow here the efforts which have been made recently to prevent the contamination which these rivers receive. At the present time, things may be taken to continue in much the same state as that described in the Report of Dr. Frankland; and the Registrar-Gen-

eral's Report remains a remarkable monument of the care which may be taken to preserve a record of what should be done, and of the want of care which fails to supply any machinery for providing that what ought to be done should be done. The water-supply of London is indeed a subject which would have tested the energies of Imperial Rome in her palmiest days of prosperity. A very ingenious and carefully thought-out paper by Mr. Edward Easton and Mr. F. J. Bramwell, read before the Economic Section of the British Association at their late meeting in Plymouth, proposed to cut the Gordian knot of the difficulty, by dividing the water-supply of London into two parts; one of water for the purposes of drinking and of extinguishing fires, to be delivered by a separate and new system of mains and pipes, on a system of continued high-pressure; the other of water for washing and other purposes, to be supplied by the existing system. The reason for this division is based on the difficulty of obtaining a sufficient quantity of really pure water for both purposes. It is very doubtful whether this plan would answer in actual practice. We only refer to it as a proof of what is felt to be needed. In the meantime, however, while this scheme is being debated for the use of London, Manchester proposes to send to the Lake district for a supply equal in quality to that which Glasgow already enjoys, and which is drawn from Loch Katrine. These facts show how closely population in this island is already pressing on the means of life. They show the necessity of careful and well-considered legislative action to secure for the large masses of population throughout the country what they require, and of the undesirableness of considering the wants of each place by itself, without regard to the needs of the rest of the community. Meanwhile it is well to observe that the metropolis, notwithstanding all the great improvements recently made in it, is really, in such matters as the mode of dealing with the water-supply, among the most old-fashioned places in the kingdom. This is a natural consequence of its having been the first to attract and to employ arrangements which have remained unaltered and unimproved in London, while they have been carried to greater perfection elsewhere. While a continuous water-supply at a high pressure may be spoken

of as general among the large towns of the north, and in other parts of England, London remains the only great example of supply on the intermittent system, with all the attendant disadvantages and inconveniences of cisterns. Great part of the difficulty in this case, as in most cases of the same kind, lies in the details, in the condition of the 'fittings.' Attention to detail, though distasteful to most minds, lies at the bottom of success in matters of this description. Without question the rearrangement of the existing system to admit of constant supply, would be attended with considerable expense, but there can be little doubt that an improvement in the water-supply would be followed by an improvement in the health of the population; and an improvement in health means—to put it on that ground alone—a great economy.

The Report of the Registrar-General calls attention to the curious fact, that the numbers of medical men in the country have not increased in proportion to the numbers of the population. The proportion of medical men to population has declined since 1851, when it was 9.7 to 10,000 persons living. In 1861 it was 8.3 to the same number, and in 1871 it was only 7.8. It would be interesting to trace to what this diminution in the number of medical men is due. It is certainly strange that, at a time when the population generally has increased greatly in wealth, and also in its consumption of luxuries, a growth in the number of those who have charge of its health should not have taken place.

The Supplement to the Thirty-fifth Report of the Registrar-General, on which much of the foregoing statement has been based, contains a most carefully drawn up statistical account of the number of deaths from the prevalent diseases in each of the districts into which the country is divided for registration purposes, and which are more than 600 in number. These facts are given thus for the ten years over which the inquiry extends. When one sees this enormous mass of detail, and considers the immense labor which must have been employed in its construction, one also has to feel of how much service it would be to the public health if, whenever such a

statement is prepared, a copy of the return for each district were sent to the principal local authorities, together with a summary Table giving the results for the whole of the country. It would thus be a very easy thing for those living in a particular district to ascertain whether their district were more healthy or less healthy than the average; and, where it differed for the worse from the average, it would be interesting to those living in each place to search out the cause, and, if possible, to guard against the recurrence of the disaster. Such subjects, which affect the welfare of all the inhabitants, would be discussed with great eagerness within the boundaries of each district. And the interest in them is not confined to those living in each district alone. It is not without a deep meaning that 'Health, wealth, and happiness' are combined in the words of our time-honored Liturgy. The health of a family is, as all know full well, closely combined with the happiness of a family. Whatever promotes health, in its broadest meaning, promotes happiness as well, and the nation is in this sense but an aggregate of families. What seems a slight improvement, or a slight deterioration, when carried on for a considerable length of time, produces a very important effect on the condition of the community. The higher civilisation which our country has already attained is but a faint foreshadowing of what might be reached were all the hindrances to further progress rooted out or restrained. Dr. Farr has drawn a picture, with no uncertain or feeble hand, of the advance which has been shown to have been made within the short limits of the lifetime of one generation (so far as these matters can be ascertained by a careful system of registration), in health, and more than in health, in education and in morality. No doubt there are many points which cannot be ascertained by these means; but a proper use of them supplies a vast deal of information. It is only needful to allude to the deep feeling of regret which would have been expressed if contrary results had been noted down, to show the value of what has thus been ascertained. And from the results of the past the country may well take courage for the future.—*Quarterly Review*.

OVER THE BALKANS WITH GENERAL GOURKO.

SOMETHING was evidently about to take place in the little town of Kezanlik, where we had been comfortably quartered for a week, a long stay for our energetic commander.

Now for a correspondent to find out, with any amount of accuracy, what is about to take place, is the very essence of his duty, and the chief difficulty of his arduous profession. In the present instance, however, it was not difficult to see that we were about to move, and a visit to the General, who was courtesy itself, confirmed our anticipations. All was got ready over night, and we went early to bed. After a hurried breakfast we were in the saddle. A waterproof and rug, and a flask full of water, were all my kit, and very independent was the feeling.

We were a party of three: Dr. Carrick, a doctor from St. Petersburg and correspondent for the *Times*, and Mr. Rose of the *Scotsman*. My servant, Terenzio, was the chosen follower from amongst all our servants, as he had proved himself, by his energy and intelligence under all trying circumstances, to be the right man in the right place.

At 5 A.M. we joined the staff and rode on, chatting on this and that, and what was likely to be the object of our expedition. To seize the railway, and so advance on to Adrianople, some said, meeting another column this side of Yenizaghra. And this seemed probable enough, as we moved eastward, in the face of the sun's rays, which soon made themselves sensibly warm, and made one choose the shady side of the road; through a lovely valley, with the Balkans towering high on our left, while on the right, running almost parallel, was a lower range of mountains, by no means to be despised, though considerably lower than the principal range, at whose foot lies Shipka.

Rose-gardens and maize-fields were spread over the valley, which was indeed a paradise before War had laid its rough hand on it. So we rode on, halting occasionally to allow the infantry—who had started some hours previously, and which we had soon overtaken—to come up with us, or for our General to consult with his Staff.

On we rode all the morning, through

the long, sunlit plain, here and there a lovely grove of walnut or oak trees; but, for the most part, the way led over the scorching, shadowless fields or the dusty, glaring roads. The sun grew hotter and hotter, until our eyes were dazzled, and our brains simmering with the heat. How I pitied the poor infantry, toiling on hopelessly through the dust! The occasional songs, which some had heart enough to sing when the morning was young and spirits were light, soon died away; and the rattle of the accoutrements, the lumbering rumble of the guns, and dull tread of the infantry boots, were all that was heard as the morning progressed. Forging the Tundja, which runs the whole length of the valley, at mid-day we halted, and after seven hours' stew it was pleasant to lie in the shade of a hill, covered with trees, after seeing our horses fed and watered. The infantry soon came up; and round us in every direction swarmed the poor tired fellows, glad to be rid of their heavy loads, and take off their hot, heavy boots. Some at once got their mid-day meal ready, and stayed quietly in the shade, watching the freshly-killed beef stewing in their little tin cans, for we were not encumbered with the large camp-kettles which usually save the trouble of every man's being his own cook. Others at once stripped and waded into the river, which ran past us: splendid-limbed fellows they were. The sunlight on their white bodies, contrasting strongly with their brown tanned heads and necks, was very curious to watch. And then I thought of the future of the poor fellows, and of the hideous battle in which these same fine limbs, now so strong and beautiful in their glorious strength and symmetry, would be lying crushed and shattered, or writhing in their death-struggle—unconscious fellows, thinking, perchance, each of them, that they might go through the fire unscathed, and return once more to their long-left homes; perhaps looking on each other now and then, and thinking how few of them would ever see Russia again! How soon were my dreaming thoughts of that sunny hour of rest to be presented to me in the most truthful and most vivid picture—the picture of the battle-field, not as painted by the stay-at-

home artist, but as the grim demon of War sketches it for you, unsparing of all its ghastly and revolting details! But it was no time for dreaming, for soon we were again on the move. We moved now with more caution, and it was evident that the enemy was not far off. The Plastouni, or dismounted Circassians, were sent ahead; and as they moved forward we noticed that on the back of their fur caps was a cross of white linen sewed on to the fur. This was to distinguish them from the Circassians of the enemy, who resemble them in every respect except in their religious opinions. These wild-looking men were mostly young, active fellows, who looked equal to performing any amount of marching. Their chief use is to creep in, availing themselves of every shelter which presents itself, thus enabling them to get within easy range of the enemy unobserved. They must often meet with men of their own race in these advanced reconnoitring expeditions, as the Turks used them for the same purpose. As we advanced at a foot's pace, the sun was sinking behind us, and the valley, now beginning to close in at its eastern end, was bathed in the beautiful glow which precedes the short twilight. As the light died away, and the mountains on each side of us grew darker and more grim in their outline, lights could be seen moving on the hills to our right, and it was evident we were being watched by the enemy as we made our way towards the pass which was to lead us through the second range of the Balkans. Darker and darker it grew, the moon not rising till late in the night; and as we rode wearily forward, we wondered how soon we were to halt for the night; every stoppage we hoped would be the last.

On, on we went, the road becoming so bad that in the darkness it was almost dangerous to remain in the saddle; so we dismounted, and very glad our poor, tired horses were to be relieved of our weight. Still we plodded on, tired, hungry, and chilly with the cold night breeze. The road now became better; we again mounted, and I soon fell into a doze, occasionally only saving myself from falling out of the saddle by clutching frantically at the pommel. At last came the final halt, at about half-past twelve. It was a case of going supperless to bed. We got a Cossack to fetch us a few sheaves

of barley from a neighboring field, and shook them out round a tree for the horses. One of them, however, was too tired to eat; not so mine, for he stuffed the whole night, and preferred eating the barley on which I lay to the heap I had given him, and I was obliged to wrap my rug closer over my head, to protect myself from the wet grain which he let drop from his mouth as he stood contentedly over me. This affection on his part was very touching, no doubt; but as I could not be certain that when his supper was finished he would not continue to show his affection by lying down on the top of me, to keep me warm, I was obliged to tie him up a little farther off, where he spent the night in eating his own share of the barley and as much as he could get of the other horses' heaps. At daybreak I woke, and saw in the grey morning the tired men wearily rolling up their coats and preparing to resume their march. So waking my companions, after a good deal of shaking and general rough treatment, I saddled my beast and rode him down to the spring, to give him a drink. I was as thirsty as he was, and very refreshing was the cool water as I let it run over my head and drank my fill. We then started and resumed our march. The morning was one of the loveliest I have seen, the grey-blue sky flecked with fleecy, rose-colored clouds, and the mists clearing away off the sun-touched mountain-tops. So riding on, we began to enter the pass, and we moved quicker, taking a by-path. I got separated from my more wisely cautious companions, and ended by getting hopelessly fixed in the thick wood which fringed the road. Not knowing who might be watching our movements in these woods, I began to feel uncomfortably anxious to rejoin the main road, when a noise of rustling in the bushes close by made me draw my revolver and peer through the brushwood to get a sight of what I imagined was a Bashi-Bazouk or Circassian scout. My mind was relieved to hear a Cossack heaping opprobrious epithets on his horse and its relations on the mother-side, my knowledge of this department of the Russian language being extensive, through constant familiarity with the sound. My horse was now anxious to make acquaintance with the stranger from the Don, and by renewed efforts succeeded in clearing us

from our position. I had to take great care I was not torn to pieces by the branches and briars, as we dashed through them, an occasional dig from the spur, as some branch twisted my foot against his side, making my horse tear more wildly through the hitherto impenetrable barrier which separated us from our comrades. However, a Cossack is not easily thrown out, and I followed in his wake, prepared at any moment for a tumble, for we were now clattering down the rocky path which led us to our comrades, whom we could see winding slowly along the mountain side. We joined a body of some 200 Cossacks, who were moving rapidly on the right flank of our column, and as I here found my little Russian artist, I gladly joined them. Our pace was more sober now, and I had time to twist myself into shape, for I felt as if I had been turned inside out and beaten all over; then came a mad gallop, as we took a side path again and made a wide circuit, for I found the party I had joined was one whose express duty it was to scour the woods on all sides, and clear them of any Turks who might be hanging about us. This was not the kind of diversion I should have chosen, in a sane moment, of my own free will; but, as I was with them, I followed, and it was at any rate better than the eternal foot's pace with the Staff. At last we cleared the woods, and came out on to the top of the last hill overlooking the plain in which lay the railroad upon which we had designs. Here a magnificent panorama presented itself—a level plain, stretching into the horizon on the right or west as I looked south, on the east side low hills, and there was the sparkle and glitter of arms. Immediately in front of us, about five miles away in the valley, was the town of Yeni-Zaghra, burning from end to end; the railway lay behind, and here were the enemy. Almost simultaneously with our appearance, evidently looked for by the troops on our left, they moved forward, and the enemy opened fire. From where I was, I could see every shot, and, with my field-glass, watch the progress of the battle. My friends the Cossacks left me, to scamper wildly across the plain, and took up their position in a little village below me. Our troops, meanwhile, advanced across the plain, the Turks retreating and leaving the town and railway in our hands, after a short struggle

in some trenches they had made in front of the railway station. They had made, apparently, a hard fight of it here, for the trenches were filled with dead, some of them with sabre wounds, which showed they had manfully stuck to their post till the last.

We had no time, however, to spend here, and we soon learnt that we were going on to Eski-Zaghra. The field was strewn with household goods and bits of clothing, which the flying people of Yeni-Zaghra had abandoned as they retreated on our approach. The sight of these forsaken things was too much for the cupidity of my servant, and he, instead of taking the rest which he was in great need of, collected all he could lay his hands on—pots and pans in beautiful shining metal, bits of stuff, towels, and a very ordinary-looking parasol, no doubt the pride of some poor woman who thought it one of the most valuable articles in her wardrobe.

We went forward a few miles, and, riding by the side of the road, my horse's foot struck something round and hard, and a head rolled out of the short grass. It was very much mutilated, the nose and upper lip being completely gone; the type was Russian, but might have been a Bulgarian, as far as we could tell from the ghastly relic of what had once been a human living head instinct with life and intelligence.

Next we came on a dead Turk who had evidently died on the retreat, and soon the men were digging a grave for him; how different from the treatment of our poor fellows should they be found by the Turks! On and on we moved, and it grew dark. We fraternised with the officers of the 33rd and 34th Regiments which had joined us, and bivouacked at ten, close to a burning village. Settling down into tolerably comfortable-looking quarters in a field of corn where the still standing ears gave us some hope of shelter from the wind, which was sweeping chilly over the plain, we were ordered away to a piece of ground covered with some kind of thorny and exceedingly uncomfortable-feeling weed. Here we made the best of our luck, and got some straw, which we spread over the spiky carpet, and threw our rugs over this.

Very uncomfortable is camping out when you settle down after dark without choosing your ground; but add to this a cold wind and no fire, as I suppose orders

were given that none were to be lighted for fear of discovering our whereabouts to the enemy who were close to us. A goose and some hard bread were distributed among about a dozen of us, and we tried to be merry in spite of the chilly darkness which spread around us. However, the meal was not one which tempted us to linger over it, and we soon rolled ourselves in our rugs and prepared to sleep. I little thought how few of our hospitable friends would ever see another bivouac. Everything was done to make us feel one of them, and their rations and little luxuries were shared with an unsparing hand. Few could talk anything but Russian, and the conversation flagged at last, as one after another dropped off to sleep. In the gray morning we awoke, and all was bustle and preparation. Cold and chilly, sleepy and out of temper, we were after sleeping on the ground with a cold wind sweeping over us; but sunlight and movement soon restore the spirits, and, before starting, a cup of tea had somewhat reduced us to the verge of absolute content. At home we little appreciate tea as a solace and remedy for the alleviation of discomfort; but on a campaign it is invaluable—far more efficacious than brandy. We moved forward very slowly and cautiously, and the good doctor and I went ahead, leaving our companion carrying on a conversation with an acquaintance of his, whom he, after the manner of correspondents in general, was pumping dry of information regarding our movements. As neither the doctor nor I were anxious on this point, and feeling certain that nothing could happen without our seeing it, we rode on ahead until a puff of white smoke and a shriek, followed by a shell tearing up the road about one hundred yards ahead, warned us that we had at last reached the enemy. This first missile sent a few Cossacks, who had formed our extreme advance, galloping back to the column. One of these, as he came riding along the road, pulled up, and cocked his carbine as he approached us, and made as though he would fire on very little provocation. Carrick, however, soon set his mind at rest by addressing him in his own language, and informing him we were Russians. This was a great piece of luck for me; for, had I been alone, my knowledge of Russian was so limited as only to have excited more grave doubts as to my being on his side, had I ven-

tured to make use of it. We were so far ahead that we might well have been taken for Turkish scouts, and a short canter over the plain to the left would have brought us to the Turkish entrenchments. This little difficulty over, and as I saw that, on the appearance of the main body, a heavy fire would be opened on it, and that we should have our full share of the projectiles, I suggested a movement to a mound standing out in the plain right ahead. This would enable us to see all that would happen, and, at the same time, afford shelter from the shower of shells which was soon to be poured on the very spot on which we stood deliberating. We put our horses for this mound at a good round pace, and soon found ourselves within easy range of the enemy's fire. A few Cossacks had made for the same shelter, and were stealthily watching the operations. We could plainly see a large body of troops returning to our left, and apparently making for our flank. We were not long left alone, for a battery of Cossack artillery galloped up and opened fire on the retreating line of brightly flashing bayonets. As the shells pitched about them we could see them hurry on; but soon our men got the range, and shell after shell dropped unerringly into their very midst, causing immense confusion. Finally came a halt, and then from the whole line of what had hitherto seemed untenanted woods came puff after puff of white smoke, and little flashes of fire, followed by the shells which pitched round about us.

Looking to our left we saw our tirailleurs advancing quietly over the plain through the maize and oat patches, many of which had been cut; the sheaves lying about in confused heaps, not in regular order as our own English sheaves are arranged. There was the attack; and we galloped madly across the loose and somewhat treacherous ground in the direction of a similar mound to our left, which commanded the point of attack of our left wing; and here we thought we should find a grand point of observation. Sheltering ourselves for some way in the bed of a water-course now quite dry, we emerged and made for our mound across the open, the shells occasionally dropping in unpleasant proximity. We had scarcely reached our shelter, and, leaving our horses well under cover, crawled cautiously to peer over the summit of the mound, when a fu-

rious fire was directed on us and the advancing troops. As we lay in the grass we could watch the poor, devoted fellows quietly walking up to the line of wood from which the shrieking shells were being hurled on them as they advanced. Soon, too, they came within the bullet range; and it was useless to reply, for their own guns carried a far shorter distance than the Turkish American rifles; no foe could be seen, and when at last they returned the fire it was at random, and only chance work. As they neared the positions the fire was redoubled, and from the wood a perfect hail of bullets was poured on them. Their officers in vain advanced and waved them on; some few brave fellows would follow and retire discouraged by the fearful fire, as their officers were shot down as they bravely advanced into the jaws of certain death. The devotion of these brave fellows cannot be too highly spoken of; but it was too much, and they were forced to retire. A battery of artillery had stationed themselves meantime immediately in our front, and we got the full benefit of the shells which were poured upon it. To lie close and take one's chance was all that could be done; and soon the interest and excitement made one forget the shells, as they whizzed by or pitched harmlessly round about. A hasty sketch and a few notes were all I could make, for soon I saw the poor wounded men creeping or crawling, as best they could, in the direction of our mound. Some sank down unable to reach us, and lay down to die, exhausted by their efforts to reach the shelter. I recognised a captain, who had shared our meal of the previous evening, being helped out by two men, and frequent were the rests they made as they limped painfully towards us. I ran out to meet them, while the good doctor got his instruments ready. Our friend had been shot through the chest: his two companions who were assisting him had, respectively, a broken arm and a ball through the instep. We did our best for the poor fellow, and laid him on the sheltered declivity of the mound. I was no surgeon, but assisted, as best I could, in sponging and cutting away the clothing.

Soon the rest of the regiment came flocking into the shelter, and this was the means of bringing down on us a redoubled amount of attention from the enemy.

Shell after shell shrieked over our heads, some skimming the top of the mound and sending the dust flying over us and the ragged fragments whistling uncomfortably close. Amidst all this the doctor was at work at his merciful occupation. All the men were told to lie down, and glad enough they were, they seemed completely cowed; and as each shell made its hideous shriek they cowered in the grass, some laughing, and others crying and muttering what seemed to be prayers. Our water was running short; for, what with sponging and giving drink to those who most needed it, all our supply had dwindled away. The doctor called for more, and none was to be found among the soldiers' flasks; so the captain, who had still voice enough to command, told his men to fetch some. The task was unpleasant; to move from the mound was to place yourself in the shelterless open ground where the shells were falling thickly, for by this ground must all our troops advance to the Turkish right, and they kept their fire directed entirely now on this road. The doctor explained the difficulty to me, and said he was going to fetch the water. Of course he was not to go alone, and we collected all the cans we could carry, and, with our own flasks, ran out from the shelter; one soldier alone of all the men collected behind the mound following us. To make for a well about a quarter of a mile to our right was our object, and for a little distance the maize hid us and the sheaves afforded us some vestige of shelter. As shell after shell shrieked and then burst, now and then bowling over the sheaves and igniting little bits of the dried grass, we somewhat repented of our undertaking; but the thought of the poor parched mouths and writhing limbs made us forget, and soon we got accustomed to it. The well itself was completely unsheltered, and a rush across the open soon brought us up. Here the awkwardness of the construction, and the difficulty of filling small-necked vessels in a hurry, were very tantalising; and one shell bursting over our very heads made us all crouch down until the bits had done flying. To hurry back was quick work, and very thankful we were to be again under shelter. We resumed our labors, and the gratitude of the poor fellows was very touching, one or two squeezing our

legs as we passed among them; and such little tokens amply repaid all we had done for them.

A Red-Cross man now made his appearance, and very acceptable his supplies of lint and bandages were. A man rode up on what I recognised as our colonel's horse, and said he was badly wounded, not far off. We had our hands full, and just then the battery between us and the enemy retired from want of ammunition, and we were left completely unprotected. The poor fellows now were in a panic; those who could move made off to the rear, as the fire had somewhat abated; those who were unable to move, alarmed by the retreat of their more fortunate comrades, clamored for news as to whether the Turks were advancing. Crawling cautiously to the top of the mound, I shouted down reassurances, keeping my eyes fixed on the woods in the distance. I saw a few Circassians circle out from the front, and move about the plain: would they advance to us? and it was with a doubtful voice I reassured the poor fellows; to leave them was horrible, and yet to stay was death. The suspense was intense; but none advanced near us, fortunately. An occasional puff of smoke told they were quietly despatching their fallen enemies; these cowardly brutes dispersed immediately an advance of our troops on the left hand, made a circuit, and went in again, and a fresh battery of Cossack artillery hurried up, and at once unlimbered and opened fire again. This last attack of our left wing was successful, and, after a furious fight in the trenches, the Turks were driven through the wood in which they had made their position—the last shell fell, and we were in peace: the lull and security were very refreshing, but the excitement was over, and now came the feeling of hunger and thirst. We attended to as many as we could, and then went in search of our colonel. We found him under some trees not far off, and badly wounded he was. He was surrounded by a few other officers; one young boy especially attracting my notice. I went up to him, and asked what I could do for him; but he would not hear of being attended to until his colonel had been done with. When it was his turn, I found his shoulder was fearfully shattered, and he must have been suffering a great deal. We could get no means of

conveying our wounded to the rear, and, as there was no ambulance, we had to send in all directions; at last, a few men came with litters, and we got some away. Now our hunger began to make itself apparent in an undeniable manner, and we made for a copse in the rear, begging a little biscuit, or dried bread from some soldiers, prepared to partake of a remarkably frugal meal. My servant, however, was not to be balked, and produced a goose, which we proceeded to roast. We had no matches, which was rather against getting a fire, and were obliged to use the powder out of some cartridges. We were very busy superintending and assisting in the lighting of this fire, and were stooping down and blowing vigorously in turns, completely forgetting that our horses were not attached, or hobbled, as we had left them only a few yards from us, contentedly stuffing themselves from a sheaf or two of barley. Two of the three would have behaved very well, had it not been for the example of the third, my servant's horse, who made a point of invariably acting in the most unreasonable and erratically inconvenient manner whenever he could see his way to distinguishing himself. He was an uncouth-looking beast, though a very serviceable creature when in company with his usual companion in harness. On the present expedition, however, he had been promoted to the rank of a riding-horse, and he was certainly not a success. If he were required to stay in the rear, nothing would induce him to allow the other two to go forward without him; his mouth was like iron. If he were in company with the others he would grind himself and pack-saddle laden with all sorts of sharp-cornered things, including guns, so close to the other horses, that he completely upset their equanimity, and caused us to thump him over the eyes, or any place available; this would not affect him much, and he would render his rider nearly mad with vexation at his own complete impotence to control his awkward movements. At a well he was simply too aggravating. If there should chance to be a crowd of soldiers struggling for a chance of a fill from the spring as it gushed out of a single pipe, or a few Cossacks patiently waiting to allow their beasts a drink from the troughs below, he would bore his way, pack-saddle, rider, and all, with irresistible and obstinate persistency,

until he had pushed his way immediately under the pipe; and there he would stand, though the soldiers showered him with blows as lustily as they might. He was the most obstinate beast imaginable, and Terence used to say he would rather have a debt of twenty pounds than possess such a horse. On the present occasion he excelled in mischief. While we were busily engaged in making our fire and cooking our goose, he had, by various crushings and crowdings of the other two, managed to eat all his own share of the barley and theirs as well, and then incited them to wander away, which they accordingly did; and when, at last, we thought of them, they were nowhere to be found. Leaving our goose roasting merrily on two sticks, before the fire, we ran hither and thither, and strained our eyes over the plain, but no sign of them was visible; again we returned, only to hear the same answer from each other—no horses. I had not the heart to blow up my man for not hobbling or tethering them as usual, for his wretchedness was too complete; and my conscience was not clear enough, as I ought to have looked after them more myself. However, complaints were useless, and something must be done. I was simply too tired out with fatigue and anxiety to go in search again, and I sent Terence to find some Cossacks to scour the plain and neighboring woods. He found one attached to the ambulance, which was not far off, and a few Bulgarian peasants, whose carts had been requisitioned for the wounded. I lay down and slept with a very desponding heart. Here were we, miles from any town, in the heart of the enemy's country, and without the possibility of getting fresh horses, and no means of progressing except on foot; the prospect was very uncomfortable. We had no heart to restore our fire, which had burnt out in our absence; and, munching the bread, we slept. On awaking in a short time, I wandered off to the ambulance, and saw my wounded friends. Here an officer who had been wounded, and had lain behind the mound very hard hit, remembered that in the morning I had no tobacco, for he had heard me asking for some. All through the long, hot day, with the pain in his wounds, he had not forgotten this, and, when I appeared, he begged some of a friend for me; his gratitude for slight services was very touching,

and my appreciation of the attention was great. I never enjoyed a pipe so much. Whilst my mind was being soothed by the influence of the tobacco, I saw a sight which made my heart jump with delight. It was Terence returning with the truant horses; they had wandered some distance into the wood, and the bushes had closed behind them. We rewarded the Bulgarians in a manner which considerably astonished them, and our liberality produced some palatable black bread and some salt. We forgot our trouble; and soon a good fire was made by our Bulgarian friends, the goose browning merrily before us. A pot of tea and bread and goose were very refreshing; and the food tasted all the sweeter for the sight of our horses, as they stood close to us, eating away as if nothing had happened and they had never caused us any anxiety. Here we were close to the ambulance, and away from the main body. So we decided to regulate our movements by theirs. Darkness was coming on, and still they had no orders to move, and we soon discovered that the column was some distance away, though in which direction it was moving we did not know. We had more men than we could carry, many of them requiring very gentle treatment.

We scoured the neighborhood for carts, and got as many as we could before the darkness came on. The carts were long and narrow, and would only hold, at most, four men lying at full length. They were filled with hay, and made tolerably comfortable beds for the poor fellows; but the jolting was dreadful, and the agony of the poor fellows extreme. It was pitch dark, and a chilly wind was rising, as we mounted and rode to the sheltered copse where the ambulance was pitched. A line of dark objects on the ground, and the figures of men bending low over the earth, and the sound of spade and pick, told plainly that the more severely wounded had succumbed.

The survivors lay in the carts quietly watching the sad scene, and no doubt wondering if it would be their fate to be buried ere long. The graves were very shallow, and there was not much ceremony. It was a sad sight enough, and rendered more so by the thought of how many poor fellows were lying in that awful wood untended, and helplessly awaiting the yataghan stroke which was too surely destined

to descend on them, for we were powerless to save them from the savage and merciless cruelty of the Bashi-Bazouk or Circassian. At last a rumor came that the General was in retreat, and our plight was not to be envied. Where were we to go, and how were we to carry our helpless wounded?—stumbling along in the darkness, a mixed crowd of ambulance men, doctors, a few Cossacks, and a small number of Bulgarians who clung despairingly to us. The way led over the fields and through patches of maize, without any road; the shaking and creaking waggons with their suffering loads crying out piteously for water: the cries were incessant, and the groans rang piteously through the night. Looking round over the plain, spots of flame and clouds of smoke, illuminated by the fires which raised them, were the only relief to the murky darkness which spread around us. "Oh, vodi, vodi! yi, yi, yi!" sounded round us from the lazy line of carts whose incessant creaking had at last been stopped by a halt before a well.

A long halt was necessary both for our wounded, and for the purpose of finding out in which direction we were to move. We were close to the main road and the scene of the day's battle. We found a handful of dragoons here; and among them we lay down, picketing our horses, securely enough this time, to bayonets hammered into the ground. Rolling ourselves in our rugs, with our saddles as pillows, we lay down in the darkness; and as the creaking line of carts passed forward in the darkness, each creak corresponding with the slow, deliberate tread of the oxen, we heard the cries of misery and pain dying away in the silent night. What a contrast to the din and excitement of the day and the merry laugh and talk of the bivouac of the night before! In a tent, in which a light was burning, could be seen the figures of two doctors who were busy operating on some wounded; the wailing moan of a few wounded men and the occasional sneezing of the horses were all that broke the silence. A drizzling rain came on in the night, and damp and chilled and stiff we awoke to roll ourselves closer in our rugs. The grey morning showed us where we had chosen our bed; for all around us were the dead, some with upturned faces, lying as though sleeping, until a closer look at them would show the

glassy eyes and distorted mouth of those who had died a violent death. They were mostly dragoons and hussars—those who had fallen in the gallant charge of the morning, and cut their way through the cloud of Circassians which had spread over this part of the road. At dawn we prepared to move, for our proximity to the enemy was unpleasant, although we did not then know that we were actually sleeping between the two armies, and within easy reach of the murderous ruffians who swarm over the fields, robbing and slaughtering those who have been unfortunate enough to retain any spark of life. Fortunately, we were on the extreme edge of the field, and the villains found ample occupation nearer their own lines. A hasty glance showed us that all the stragglers were moving in one direction, towards the village of Dalboka, at the base of the mountain range which separated us from the Kezanlik valley. A miserable appearance these stragglers presented! some lame and limping, either from wound or from fatigue; others still hugging some of the booty taken from Yeni-Zaghra; others helping along a sick or wounded comrade. All these had risen up from the ground at the earliest streak of dawn, anxiously looking round for the Russian troops, without any clue to their whereabouts. Here we found, to our great relief, our Scotch friend, from whom we had parted the day before. We hunted about the village for a house that presented any appearance of life, and at last found one whose master was hanging about, trying to look as if he did not belong to it; but, seeing us prying about and trying the fast-closed door, he came forward. A little persuasion and the sight of a piece of silver made him obliging enough, and he produced an unlimited supply of eggs, and chased his poultry about with great alacrity, when he saw there was a chance of obtaining ever so small a price for them.

He was not particular, I fancy, about their being his own; for the poor geese and fowls had been so hunted that, finding this yard hitherto undisturbed, they had flocked here for a shelter from the murderous clutches of the soldiers, who were busy collecting the various specimens of the poultry tribe who were unfortunate enough not to be possessed of wings suitable for flight. While our breakfast was

being cooked, I strolled a little distance from the cottage, and met with one of the most horrible sights it was ever my lot, even in this land of horrors, to witness. A strange odor attracted my attention, and I made for a still smoking but roofless house, and peered in. A mass of roasting and hissing bodies, half buried by the fallen rubbish, was lying in a confused heap, blackened, contorted, and hideously grinning; a few fragments of clothes still hung about their limbs, and, from their character and texture, seemed to be those usually worn by the Bulgarians. Naturally anxious to discover the truth, I searched about, and in a corner found one man, who had evidently been suffocated or shot, for his clothes were only scorched, and his limbs unburnt. He was a Bulgarian; and then I saw the remains of other garments, some of them women's, which confirmed my conviction.

Around the doors were one or two bodies with gunshot wounds, which seemed to show that some of the unfortunate victims had emerged to make their escape from the horrible death by fire, and had only met with a more speedy release at the hands of the fiends who had guarded the door. I was horrified, and enquired the story of the tragedy from the man whose house we had occupied. He said he was the only survivor of the Bulgarian population of the village, and had narrowly escaped with his life. He said all had been butchered on our approach. I am not prejudiced either way in my sympathies, for I have seen these precious Christians commit atrocities a few degrees less horrible, perhaps, than this; but this I proved to be committed by the Turks, lest any should lay it to the charge of the retreating Russians. On the advance of the Turks this village would, in all probability, be still smoking, and would naturally lead to the supposition that the Russians or Bulgarians had done this terrible deed should any one on the Turkish side take any notice of what afterwards was not, by any means, a rare sight. I counted the bodies uncovered with the rubbish, and could clearly make out thirty; how many lay concealed under the smoking mass it was impossible to judge. I will not enlarge on other atrocities it was our unfortunate lot to witness, for it is difficult enough to ascertain the truth, and such

descriptions would but unnecessarily shock the reader.

After a hearty breakfast of goose, eggs, and milk—for the horrible sight, I am ashamed to say, did not impair our ravenous cravings for some food other than the black, hard, flinty stuff they called bread, and which we had been compelled to munch thankfully when no other food more palatable was to be procured—we got ready for the start; and now we discovered that our way lay towards the Tundja valley, and we guessed at the real issue of the battle of the preceding day. During a battle, it is exceedingly difficult for anyone, however skilled he may be in military matters, to discover the result of the fighting along the whole line, especially if he is in the thick of it and his division is successful. We found that instead of sleeping, as we had supposed, on a victorious field, we had slept some three miles, or more, beyond the Russian lines, and our General had now commenced his retreat. The pass we were forced to use was a narrow and difficult one, and should the enemy push forward, or turn our flank by another pass to the westward, distant only a few miles, we must be lost, and very few of us stood a chance of seeing home again. The road was villanous, cut out of the hard mountain side with very little care, and soon became blocked by the retreating waggons and guns, and as many as twelve horses were required to drag an ordinary field-gun up the precipitous slope. Some guns we had captured the day before were simply tumbled headlong down the mountain side, as it was not considered worth the trouble of taking them with us. Here and there an ambulance cart had broken down, and the unfortunate wounded lay helplessly moaning, or begging those passing to help them forward—anything rather than be left to the mercy of the advancing Turks. In one of the most difficult angles of the pass, a large cart, containing the medicines of the ambulance, had broken down, and the road was strewn with drugs, broken bottles, bandages, and all the paraphernalia of the doctors. The confusion was complete, and, as many of the contents were too precious to be left behind, those in the rear were obliged to stop until the cart had been mended. On an occasion of this sort, the poor fellows who had died

on the road were taken from the carts and buried hurriedly by the roadside, and the priests were continually wandering to and fro, up and down the long line of waggons, and performing the last offices for the dead. It was a painful sight to see the horses breaking their hearts in trying to drag the heavy guns up this dreadful, rocky road, the drivers yelling and showering blow after blow with whip and rifle or lance; some died, literally of exertions too great for them, and they were left by the roadside. Quitting the main track, we got into a path running parallel to it, and went on somewhat faster, as this was too narrow for anything except horses or foot soldiers. In this path we found a poor wounded fellow, sitting down and rocking himself with pain. He had been shot through the jaw, and inflammation was coming on. He cried piteously for water, which he could not drink except by drops at a time. The sun was pouring down on his defenceless and throbbing head, and his plight was desperate. He had fancied that, as his wound left all his limbs free, he could walk, and had started ahead of the waggons provided for the wounded. These I knew were all full, and to leave him for this poor chance was useless; we could not abandon him, and put him on one of our horses. His tongue was terribly swollen as well as his face, and his appearance was dreadful. For a little time we struggled in holding him on, as he was too weak to be sure of his seat; we had to walk for the sake of our horses. At last the pain was too great, and he begged to be set down by the roadside. We carried him to the main road, and then left him to his fate. His look of thanks was very touching, for he could not speak. One faithful comrade stayed beside him, and I have often thought of their fate. Mercy from the enemy they could not expect, and the poor fellow had many hours of consciousness left him. Such is war; and these little incidents, unimportant as they are, all, added together, make up a hideous tale of misery. Hard-heartedness is a very unenviable quality as a rule, but on occasions like these it would be better to have a large quantity on hand. Towards evening we bivouacked with our friends of the 33rd Regiment, and small enough was the gathering: some of them with bad enough wounds too. My gallant

young friend, mentioned as waiting his time to be dressed during the battle of the previous day, had somehow acquired a donkey, and was held astride by two soldiers. He seemed a pet with the officers; as well he might be, so young, and delicate, and gentle was he. His was a short soldier's life, but in that short week he had seen more service than many a general in other armies; his wound must cripple him for life.

After this evening bivouac on the peak of the range south of the Kezanlik valley we got into serious difficulties, owing to a foolish confidence in the advisability of short cuts. The road was very zigzag, and one could plainly see the heads of those who had started some half-an-hour before winding slowly round the tortuous way; while, just close to us, was a path which seemed to lead direct to the point we were making for. Turning our horses into it, following the example of a couple of soldiers, we wound along pleasantly enough, in all about ten souls; two were driving some very refractory sheep before them, and these animals strongly objected for some reason, to take the path—probably from instinct that their fellow-sheep were going in an opposite direction. Owing to these beasts and their refractory evolutions, we were for a long time out of sight of the retreating column, and it grew dark; the path became worse at each step, and at last it was necessary to dismount and scramble down a little way and tug the unwilling horses after, as they put all four feet together and slid down on their haunches—sheep, horses, and men tumbling about on one another. After about a quarter of an hour of this very rough game, we halted and considered our position. To retreat up the awful path, if one could call it so, was impossible; and to advance was seemingly to run into the side paths along which the enemy's Bashi-Bazouks and Circassians would shortly pour—if, indeed, they were not now watching our retreat. It was no use standing there, and we continued our scramble. I have often scrambled down apparently undescendable places in England for sheer amusement, as a boy, in broad daylight; but I little expected in such rambles that it would be my fate to do so in a barbarous enemy's country, with a horse depending on me, pitch dark, and a set of grumbling companions, all of whom laid the

blame on each other; others, more kind, placing the entire blame on my devoted head. The position was simply too excruciating, and ill luck was at a climax. Things could not be worse, and they would not improve; worse was to follow. We at last arrived at the bottom of a deep ravine, and knew not which way to turn; and, in trying to find some signs of a path, we got separated. The feeling of utter hopelessness and loneliness was very trying, with a tired horse and a dark night and foes all round. After some search, by great good luck I found my companions; and we proceeded by a tolerable path. Some were now for halting till daylight, and others for pushing forward. The first idea was madness, as we should certainly be overtaken at daylight; and, besides this, our numbers gave us a certain security in the event of our meeting only a small party of three or four Bashis. On we crept, the soldiers keeping very close and rather in the rear, for soon we heard the distant barking of dogs. This told us we were nearing some village, and the widening road confirmed our conjecture. Now came another dilemma; was it a Turkish or a Bulgarian village? If the former our fate was pretty certain, especially in the case of some tidings of our reverse having been brought by any of the advancing Turks. In this case, the inhabitants, quiet enough when the Russians held their territory, would in all probability become Bashi-Bazouks on the instant, and join their informers; for a Bashi-Bazouk is only an armed peasant. Some were for avoiding this village; but as it might be a Bulgarian one, and in that case we should have food, shelter, and a certain amount of security, most of us were for entering it and finding out the worst. We made for the village down the hill, losing our way in a corn-field and stumbling helplessly in the direction of the now violent barking of the dogs and the flicker of an occasional light. How our hearts beat as we rode into the dark street and we knocked at a house with no success! We went farther, until we came to a house where we saw a light, and figures passing hurriedly to and fro or peering out anxiously at their midnight visitors. Knocking loudly, we all crowded round the door and made ready for the worst; my hand naturally grasped my revolver, and the men were all ready with their rifles in the event of a surprise.

Knock, knock, knock, brought no answer for some time; and then a trembling voice came from the house and asked in Bulgarian if we were friends. Great was our relief, and we were all admitted into the farmyard of the house, where we found a large number of persons collected together for safety. It seemed the Turks were outnumbered by the Bulgarian inhabitants, and the former had not yet returned; we were safe till then, and so we saw our horses fed, and then looked after our own supper—fowl-soup and eggs, as usual, with a little bread. Then we lay down in the verandah, as the house was full of not very savory men, women, and children, lying in confused heaps about the floors.

We got our guns ready, and it was my intention not to sleep, so as to be ready for a bolt on the first sound of a disturbance in the village. The moon had now risen, and nothing was to be heard except the low talk of the soldiers in the yard below, and the fitful and gradually dying barks of the more indignant of the canine inhabitants. Occasionally the chorus would be renewed, and awaken one's attention, and then die reassuringly away; and the next thing I knew was that the sun was shining strong on my face. We had slept late, and the soldiers had been rejoined by a few more stragglers and gone forward to overtake the retreating troops. All was as yet peaceful, and we began to be ashamed of our apprehensions of the night before; but the people were leaving, and so we left too. Our host was induced to guide us on the road to Kezanlik, where we hoped to find Russians; for we had left some of our property there, in charge of our coachman, with our waggon-horses and pack-saddles. The fresh morning air was invigorating, and the bright sunshine very reassuring after our previous fears. All was apparently peaceful and calm, and the preceding five days of excitement and hardship seemed to be like a dream, so quiet was the landscape and bright the sunshine. We lingered leisurely by the stream in the village, eating the plums from the lovely orchards, and felt inclined to follow the example of the lotseaters, and swear we would wander no more; but the consciousness that we were well to the rear made us move forward. The troops, we learned, had made for the Hanikoi Pass, whilst we were making for Shipka *via* Kezanlik. We should not have

moved so leisurely had we known the state of things in the latter place. We walked our horses across the lovely plain, in order to enable our guide to keep up with us. The water-melons were ripening in the deserted fields, and served us instead of water, so cool and juicy were they. The scene was one of perfect peace, and we might have imagined we had left the land of war far behind us. Our guide conducted us through a burnt village, where we had halted on our advance; and as we approached, we saw that the inhabitants had returned. They were all Turks, and we for a moment hesitated entering it; they were watching us, and it would not do to show any nervousness, so we forded the river safely enough, with the exception of the good doctor, whose horse suddenly insisted on taking a bath in mid-stream; however, his rider was too sharp for him, and succeeded in inducing him to postpone his roll until he reached a sandbank in the middle, when nothing would persuade him to keep his legs. The poor beast was quite done, and had lost two shoes into the bargain in our descent of the mountain in the preceding night. How we all escaped was a marvel; but my horse was active and not so heavy on his feet, consequently the strain on his shoes was less. The other horses were shod with Turkish shoes, which are simple plates of iron, with a hole about the size of two fingers in the centre, and are the best for mountain work. While this little amusement was taking place, the Turks were sulkily watching us, and gathering in groups as we neared the village. We were comparatively safe, as we were all armed; but it was for our guide I feared, as he was a Bulgarian, and he had the return journey to make. As we entered the village they made no sign of recognition, and scowled surlily at us as we passed, and we were not sorry to be well through the place. Clearing the village we dismissed our guide with a substantial reward and many hand-shakings. Poor fellow! I often wonder if he got home safe, and, if so, if he escaped with his family from the advancing Turks. He made a wide *détour* and skirted the village, making for his own home across the pathless fields, far the wisest course, for the road would be sure to be soon filled with the murderous Bashis: not only that, but the inhabitants of the village were all houseless and ruined; and their exaspera-

tion must have been intense on their return. I know not who destroyed their village in the first instance; likely enough it was the Bulgarians during our occupation of Kezanlik, or it may have been the Turks on their retreat.

We halted under some trees, made a fire, and cooked some soup; here we lay idly, and slept through the heat of the day, and thought ourselves secure enough. About two o'clock we started again, and pictured to ourselves our comfortable lodging in the Bulgarian quarter at Kezanlik. We thought how delightful it would be to change our clothes and wash, and then quietly enjoy a good dinner in the pretty verandah of our house, and then the soft cushions for a bed. Remember, we had not taken off our clothes or boots even for five days, and had fed on the roughest and scantiest fare, so the reader will excuse the seeming greediness of our anticipations. We invited the doctor to dinner, and Terence promised us a feast which would at least be fit for the Lord Mayor of London should he by chance turn up. Little did we dream of what was going on in Kezanlik when all our minds were busy conjuring up these pleasant anticipations! As the afternoon wore on, and we were within a couple of hours of the town, we met crowds of Bulgarians flying away, though where they were going we could not imagine; we thought they must be returning to their houses in the mountains, whence they had fled some weeks before. On we rode, and at last the minarets of the town appeared in sight. I was ahead, leading the lame horse; for the doctor, as kind to his beast as to any human being, was walking behind the Scotchman and Terence. The horses' hoofs at length clattered on the stones of the street, and, as I went forward, I noticed the town was empty and deserted—no, not empty; close behind me, as I looked round in astonishment, was a Turk lying staring steadily at the sky, with horrible bleeding throat, cut right across. I had seen enough dead men by this time not to mind the sight; but this bloody corpse lying in this mysterious way, seemingly forgotten, in what appeared a city of the dead, struck a cold chill of horror, and I stopped, waiting for my companions to come up. Creeping up cautiously through the streets, with our dinner forgotten in the anticipation of un-

known ills, we suddenly came face to face with men who put their guns up and covered us unpleasantly; we rode on, and our manner reassured them. They were Bulgarian volunteers, considerably the worse for an over-dose of "vodki," combined with abject terror. We rode up to the house we had occupied, to find its hospitable gate closed firmly; we shook, knocked, and rattled away at the strong door without effect; our horses, remembering many a good feed and long day of idleness in the yard within, were as anxious for admittance as ourselves. It was no use; and we rode away to the "khan," or inn, where the doctor had lodged, and where he had left everything, even some money. We incautiously entered the yard, and were immediately surrounded by the drunken ruffians, who began to insult us, and insisted we were spies, as we had come from the direction of the Turks; they actually insulted the brassards on our arms, though they bore the Russian eagle, and were for shooting us on the spot, declaring we had just put them on. Shot we should have been, as sure as fate, had not the doctor assumed a very firm tone, blowing them up and threatening them with instant death on arrival at headquarters if they touched a hair of our heads. His knowledge of Russian saved us, for we were helpless; and, had we been alone, nothing but recourse to our revolvers could have preserved us from such an unsatisfactory death; as it was, our fate hung in the balance for some time, as the sergeant was hopelessly drunk, and could not be convinced. They were mad with fear and fright, for they were the only Bulgarians in the town, and the Turks were waiting their opportunity to settle them. Every Turk who showed himself was killed, so we learnt, and the place was rather too warm for us. The doctor, however, prevailed, and convinced those who had still sense enough to recognize us as Russians; but the sergeant was obstinate, while his rage, drunkenness, and fright soon became amusing. The doctor could not get at his room, further delay was useless if not absolutely foolhardy, and we enquired how near the Russians were. "At Shipka," they replied. So we had another two hours' ride before us if the light lasted, and, if not, possibly another night outside the lines. We made for the monastery, where

we were told there were a few Cossacks, and sure enough we saw them in the distance. As we rode down the street, I still leading the lame horse, two men came out from a doorway and took deliberate aim at us; but just then a Russian dragoon turned the corner, and the villains bolted. This new-comer did not make us out at first, and when he was told what we were, and where we had come from, seemed much surprised, as he and five comrades had been sent forward to reconnoitre, and give warning of the approach of the Turks. He said they ought to have left some time ago, but had waited in vain for one of their number, who was patrolling the streets, and feared he had been shot, for no traces of him were to be found. We soon found the four others, and left immediately with them. It was pleasant to be again with friends, and we now knew we were on the right road to the main body, i.e. the division of General Radetsky, the valiant defender of Shipka Pass. The darkness was now coming on, and these men moved quickly. It was difficult for the already tired-out doctor to keep up with us; in vain did we offer him our horses and ask him to let us walk. No; his indomitable British pluck and good-heartedness made him spare his footsore horse. We were comparatively near our journey's end, and fresh horses could be got at Shipka; but in the end he had to mount, for it grew so dark that it was with great difficulty I could see the man who rode ahead of me. We came up with the farthest outpost, some fifty dragoons, and here a consultation took place. The officers received us kindly, but were too much occupied to ask many questions. At last they all suddenly moved off, and clattered away in the darkness. I did not relish being left behind, so I insisted on the doctor's mounting, but he had only time to tighten the girths and jump into the saddle. His bridle had been tied to the servant's saddle since the feed in the middle of the day; there was no time to put it on, as the retreating dragoons were now some distance away in the pitchy darkness. I seized the headstall of his horse, and spurred on my beast, nearly unseating myself, for the obstinate old brute he was riding would not move at a decent pace; however, he bestirred himself under the administration of spur and whip, and we got

into a round pace; but the dragoons had moved quickly, and it was a long chase. The anxiety to catch them up, as the road was not very distinct, and the difficulty of guiding my horse and the lame and stumbling brute beside me, was bad enough; but, tired as we were before, the excitement had given us fresh energy; the horses guided us somehow as they made for the steeds in front. At last we came up with them, for they had, luckily for us, lost the road. We beat about a good deal, standing still sometimes for half an hour, expecting to move every moment. We had got into the middle of the dragoons, but could see nothing but an occasional white cap, or a shadowy dark outline. To adjust the bridle was impossible, as we could not find Terence, and to get down in the darkness to try to find him was rather hazardous in the event of a quick movement. On we moved, now at a good smart trot or canter, rattling over the stony roads, until we both of us narrowly escaped a nasty tumble by falling over the Scotchman, who had come down, horse and all, just in front of us. I had to let go my hold and ride round the prostrate Celt, in order to catch the bridleless beast and the helpless rider. Luckily, only a graze or two were the result of this tumble, and we went ahead now in

the right track. Soon the light of a camp appeared, and we were back again within friendly lines. Flinging ourselves down on the bare ground, we slept the sleep of utterly worn-out men; the sense of security was soothing, for we were as safe as if we were in our beds in England.

The incidents above related—unimportant, trivial as they are in themselves—will, I trust, give some idea of the kind of life led by soldiers and correspondents while in immediate contact with the enemy. It has been my intention only to relate what actually happened to the trio of Englishmen, who were trying to afford a few moments of gratification to the British public, this mighty and never-to-be-satisfied monster, who devours news and sketches, seldom thinking of the perils and hardships that have been endured in affording food for his voracious appetite. Very often the record of such events as these appears as a short telegram, or a small sketch, both hurriedly glanced at and forgotten as soon as seen. I hope the readers of these few pages will think kindly sometimes of what the special correspondent or artist has to undergo to interest them in the minor details of this terrible war.—*Cornhill Magazine*.

THE NEW STAR WHICH FADED INTO STAR-MIST.

BY RICHARD A. PROCTOR, B.A., F.R.S.

THE appearance (probably sudden) of a new star in the constellation of the Swan last autumn promises to throw even more light than was expected on some of the most interesting problems with which modern astronomy had to deal. It was justly regarded as a circumstance of extreme interest that so soon after the outburst of the star which formed a new gem in the Northern Crown in May, 1866, another should have shone forth under seemingly similar conditions. And when, as time went on, it appeared that in several respects the new star in the Swan differed from the new star in the Crown, astronomers found fresh interest in studying, as closely as possible, the changes presented by the former as it gradually faded from view. But they were not prepared to expect what has actually taken

place, or to recognize so great a difference of character between these two new stars, that whereas one seemed throughout its visibility to ordinary eyesight, and even until the present time, to be justly called a star, the other should so change as to render it extremely doubtful whether at any time it deserved to be regarded as a star or sun.

Few astronomical phenomena, even of those observed during this century (so fruitful in great astronomical discoveries), seem better worthy of thorough investigation and study than those presented by the two stars which appeared in the Crown and in the Swan, in 1866 and 1876 respectively. A new era seems indeed to be beginning for those departments of astronomy which deal with stars and star-cloudlets on the one hand, and

with the evolution of solar systems and stellar systems on the other.

Let us briefly consider the history of the star of 1866 in the first place, and then turn our thoughts to the more surprising and probably more instructive history of the star which shone out last November.

The star which shone out in the Northern Crown in May, 1866, would seem to have grown to its full brightness very quickly. Space will not permit me here to consider the history of the star's discovery; but I think all who have examined that history agree in considering that whereas on the evening of May 12, 1866, a new star was shining in the Northern Crown with second-magnitude brightness, none had been visible in the same spot with brightness above that of a fifth-magnitude star twenty-four hours earlier. On ascertaining, however, the place of the new star, astronomers found that there had been recorded in Argelander's charts and catalogue a star of between the ninth and tenth magnitude in this spot. The star declined very rapidly in brightness. On May 13th it appeared of the third magnitude; on May 16th it had sunk to the fourth magnitude; on the 17th to the fifth; on the 19th to the seventh; and by the end of the month it shone only as a telescopic star of the ninth magnitude. It is now certainly not above the tenth magnitude.

Examined with the spectroscope, this star was found to be in an abnormal condition. It gave the rainbow-tinted streak crossed by dark lines, which is usually given by stars (with minor variations which enable astronomers to classify the stars into several distinct orders). But superposed upon this spectrum, or perhaps we should rather say shining through this spectrum, were seen four brilliant lines, two of which certainly belonged to glowing hydrogen. These lines were so bright as to show that the greater part of the light of the star at the time came from the glowing gas or gases giving these lines. It appeared, however, that the rainbow-tinted spectrum on which these lines appeared was considerably brighter than it would otherwise have been, in consequence of the accession of heat indicated by and probably derived from the glowing hydrogen.

Unfortunately, we have not accordant

accounts of the changes which the spectrum of this star underwent as the star faded out of view. Wolf and Rayet, of the Paris Observatory, assert that when there remained scarcely any trace of the continuous spectrum the four bright lines were still quite brilliant. But Huggins affirms that this was not the case in his observations; he was "able to see the continuous spectrum when the bright lines could be scarcely distinguished." As the bright lines certainly faded out of view eventually, we may reasonably assume that the French observers were prevented by the brightness of the lines from recognizing the continuous spectrum at that particular stage of the diminution of the star's light when the continuous spectrum had faded considerably, but the hydrogen lines little. Later, the continuous spectrum ceased to diminish in brightness, while the hydrogen lines rapidly faded. Thereafter the continuous spectrum could be discerned, and with greater and greater distinctness as the hydrogen lines faded out.

Now, in considering the meaning of the observed changes in the so-called "new star," we have two general theories to consider.

One of these theories is that to which Dr. Huggins would seem to have inclined, though he did not definitely adopt it—the theory, namely, that in consequence of some internal convulsion enormous quantities of hydrogen and other gases were evolved, which in combining with some other elements ignited on the surface of the star, and thus enveloped the whole body suddenly in a sheet of flame.

"The ignited hydrogen gas in burning produced the light corresponding to the two bright bands in the red and green; the remaining bright lines were not, however, coincident with those of oxygen, as might have been expected. According to this theory, the burning hydrogen must have greatly increased the heat of the solid matter of the photosphere, and brought it into a state of more intense incandescence and luminosity, which may explain how the formerly faint star could so suddenly assume such remarkable brilliance; as the liberated hydrogen became exhausted, the flame gradually abated, and with the consequent cooling the photosphere became less vivid, and the star returned to its original condition."

According to the other theory, advanced by Meyer and Klein, the blazing

forth of this new star may have been occasioned by the violent precipitation of some great mass, perhaps a planet, upon a fixed star, "by which the momentum of the falling mass would be changed into molecular motion," and result in the emission of light and heat.

"It might even be supposed that the new star, through its rapid motion, may have come in contact with one of the nebulae which traverse in great numbers the realms of space in every direction, and which from their gaseous condition must possess a high temperature; such a collision would necessarily set the star in a blaze, and occasion the most vehement ignition of its hydrogen."

If we regard these two theories in their more general aspect, considering one as the theory that the origin of disturbance was within the star, and the other as the theory that the origin of disturbance was outside the star, they seem to include all possible interpretations of the observed phenomena. But, as actually advanced, neither seems satisfactory. The sudden pouring forth of hydrogen from the interior, in quantities sufficient to explain the outburst, seems altogether improbable. On the other hand, as I have pointed out elsewhere, there are reasons for rejecting the theory that the cause of the heat which suddenly affected this star was either the downfall of a planet on the star or the collision of the star with a star-cloudlet or nebula, traversing space in one direction, while the star rushed onwards in another.

"A planet could not very well come into final conflict with its sun at one fell swoop. It would gradually draw nearer and nearer, not by the narrowing of its path, but by the change of the path's shape. The path would, in fact, become more and more eccentric; until at length, at its point of nearest approach, the planet would graze its primary, exciting an intense heat where it struck, but escaping actual destruction that time. The planet would make another circuit, and again graze the sun, at or near the same part of the planet's path. For several circuits this would continue, the grazes not becoming more and more effective each time, but rather less. The interval between them, however, would grow continually less and less; at last the time would come when the planet's path would be reduced to the circular form, its globe touching the sun's all the way round, and then the planet would very quickly be reduced to vapor and partly burned up, its substance being absorbed by its sun. But all successive grazes would be indicated to us by accessions of lustre, the period between each seeming outburst being only a few months at first, and gradually becoming less and less (during a long

course of years, perhaps even of centuries) until the planet was finally destroyed. Nothing of this sort has happened in the case of any so-called new star." "As for the rush of a star through a nebulous mass,"

I went on,

"that is a theory which would scarcely be entertained by any one acquainted with the enormous distances separating the gaseous star-clouds properly called nebulae. There may be small clouds of the same sort scattered much more freely through space; but we have not a particle of evidence that this is actually the case. All we certainly *know* about star-cloudlets suggests that the distances separating them from each other are comparable with those which separate star from star, in which case the idea of a star coming into collision with a star-cloudlet, and still more the idea of this occurring several times in a century, is wild in the extreme."

But while thus advancing objections, which seem to me irrefragable, against the theory that either a planet or a nebula (still less another small star) had come into collision with the orb in Corona which shone out so splendidly for a while, I advanced another view which seemed to me then and seems now to correspond well with phenomena, and to render the theory of action from without on the whole preferable to the theory of outburst from within. I suggested that, far more probably, an enormous flight of large meteoric masses travelling around the star had come into partial collision with it in the same way that the flight of November meteors comes into collision with our earth thrice in each century, and that other meteoric flights may occasionally come into collision with our sun, producing the disturbances which occasion the sun-spots. As I pointed out, in conceiving this, we are imagining nothing new. A meteoric flight capable of producing the suggested effects would differ only in kind from meteoric flights which are known to circle around our own sun. The meteors which produce the November displays of falling stars follow in the track of a comet barely visible to the naked eye.

"May we not reasonably assume that those glorious comets which have not only been visible but conspicuous, shining even in the day-time, and brandishing around tails, which like that of the 'wonder in heaven, the great dragon,' seemed to 'draw the third part of the stars of heaven,' are followed by much denser flights of much more massive meteors? Some of these giant comets have paths which carry them very close to our sun. Newton's comet, with its tail a hundred millions of

miles in length, all but grazed the sun's globe. The comet of 1843, whose tail, says Sir John Herschel, 'stretched half-way across the sky,' must actually have grazed the sun, though but lightly, for its nucleus was within 80,000 miles of his surface, and its head was more than 160,000 miles in diameter. And these are only two among the few comets whose paths are known. At any time we might be visited by a comet mightier than either, travelling in an orbit intersecting the sun's surface, followed by flights of meteoric masses enormous in size and many in number, which, falling on the sun's globe with enormous velocity corresponding to their vast orbital range and their near approach to the sun—a velocity of some 360 miles per second—would, beyond all doubt, excite his whole frame, and especially his surface regions, to a degree of heat far exceeding what he now emits."

This theory corresponds far better also with observed facts than the theory of Meyér and Klein, in other respects than simply in antecedent probability. It can easily be shown that if a planet fell upon a sun in such sort as to become part of his mass, or if a nebula in a state of intense heat excited the whole frame of a star to a similar degree of heat, the effects would be of longer duration than the observed accession of heat and light in the case of all the so-called "new stars." It has been calculated by Mr. Croll (the well-known mathematician to whom we owe the most complete investigations yet made into the effect of the varying eccentricity of the earth's orbit on the climate of the earth) that if two suns, each equal in mass to one-half of our sun, came into collision with a velocity of 476 miles per second, light and heat would be produced which would cover the present rate of the sun's radiation for fifty million years. Now although it does not certainly follow from this that such a collision would result in the steady emission of so much light and heat as our sun gives out, for a period of fifty million years, but is, on the contrary, certain that there would be a far greater emission at first and a far smaller emission afterwards, yet it manifestly must be admitted that such a collision could not possibly produce so short-lived an effect as we see in the case of every one of the so-called new stars. The diminution in the emission of light and heat from the maximum to one-half the maximum would not occupy fifty millions of years, or perhaps even five million or five hundred thousand years; but it would certainly require thousands of years; whereas we have seen that

the new stars in the Crown and in the Swan have lost not one-half but ninety-nine hundredths of their maximum lustre in a few months.

This has been urged as an objection even to the term star as applied to these suddenly appearing orbs. But the objection is not valid; because there is no reason whatever for supposing that even our own sun might not be excited by the downfall of meteoric or cometic matter upon it to a sudden and a short-lasting intensity of splendor and of heat. Mr. Lockyer remarks that, if any star, properly so called, were to become "a world on fire," or "burst into flames," or, in less poetical language, were to be driven either into a condition of incandescence absolutely, or to have its incandescence increased, there can be little doubt that thousands or millions of years would be necessary for the reduction of its light to its original intensity. This must, however, have been written in forgetfulness of some facts which have been ascertained respecting our sun, and which indicate pretty clearly that the sun's surface might be roused to a temporary intensity of splendor and heat without any corresponding increase in the internal heat, or in the activity of the causes, whatever they may be, to which the sun's *steady* emissions of light and heat are due.

For instance, most of my readers are doubtless familiar with the account (an oft-told tale, at any rate) of the sudden increase in the splendor of a small portion of the sun's surface on September 1, 1859, observed by two astronomers independently. The appearances described corresponded exactly with what we should expect if two large meteoric masses travelling side by side had rushed, with a velocity originally amounting to two or three hundred miles per second, through the portions of the solar atmosphere lying just above, at, and just below the visible photosphere. The actual rate of motion was measured at 120 miles per second as the minimum, but may, if the actual direction of motion was considerably inclined to the line of sight, have amounted to more than 200 miles per second. The effect was such that the parts of the sun thus suddenly excited to an increased emission of light and heat appeared like bright stars upon the background of the glowing photosphere itself. One of the observers, Carrington, supposed for a moment that the

dark glass screen used to protect the eye had broken. The increase of splendor was exceedingly limited in area, and lasted only for a few minutes,—fortunately for the inhabitants of the earth. As it was the whole frame of the earth sympathised with the sun. Vivid auroras were seen, not only in both hemispheres, but in latitudes where auroras are seldom seen. They were accompanied by unusually great electro-magnetic disturbances.

"In many places," says Sir J. Herschel, "the telegraph wires struck work. At Washington and Philadelphia, the electric signalmen received severe electric shocks. At a station in Norway, the telegraphic apparatus was set fire to, and at Boston, in North America, a flame of fire followed the pen of Bain's electric telegraph, which writes down the message upon chemically prepared paper."

We see, then, that most certainly the sun can be locally excited to increased emission of light and heat which, nevertheless, may last but for a very short time; and we have good reason for believing that the actual cause of the sudden change in his condition was the downfall of meteoric matter upon a portion of his surface. We may well believe that, whatever the cause may have been, it was one which might in the case of other suns, or even in our sun's own case, affect a much larger portion of the photosphere, in which case there would be just such an accession of splendor as we recognize in the case of the new stars. And as the small local accession of brilliancy lasted only a few minutes, we can well believe that an increase of surface brilliancy affecting a much larger portion of the photosphere, or even the entire photosphere, might last but for a few days or weeks.

All that can be said in the way of negative evidence, so far as our own sun is concerned, is that we have no reason for believing that our sun has, at any time within many thousands of years, been excited to emit even for a few hours a much greater amount of light and heat than usual; so that it has afforded no direct evidence in favor of the belief that other suns may be roused to many times their normal splendor, and yet very quickly resume that usual lustre. But we know that our sun, whether because of his situation in space, or of his position in time (that is, the stage of solar development to which he has at present attained), belongs to the class of stars which shine with steady lus-

tre. He does not vary like Betelgeux, for example, which is not only a sun like him as to general character, but notably a larger and more massive orb. Still less is he like Mira, the Wonderful Star; or like that more wonderful variable star, Eta Argus, which at one time shines with a lustre nearly equaling that of the bright Sirius, and anon fades away almost into utter invisibility. He *is* a variable sun, for we cannot suppose that the waxing and waning of the sun-spot period leaves his lustre, as a whole, altogether unaffected. But his variation is so slight that, with all ordinary methods of photometric measurement by observers stationed on worlds which circle around other suns, it must be absolutely undiscernible. We do not, however, reject Betelgeux, or Mira, or even Eta Argus, from among stars because they vary in lustre. We recognise the fact that, as in glory, so in condition and in changes of condition, one star differeth from another.

Thus while there are excellent reasons for rejecting the theory that a massive body like a planet, or a nebulous mass like those which are found among the star-deeps (the least of which would exceed many times in volume a sphere filling the entire space of the orbit of Neptune), fell on some remote sun, there are no sufficient reasons for rejecting or even doubting the theory that a comet, bearing in its train a flight of many millions of meteoric masses, falling directly upon such a sun, might cause it to shine with many times its ordinary lustre, but only for a short time, a few months or weeks, or a few days, or even hours. In the article entitled "Suns in Flames," in my "Myths and Marvels of Astronomy,"* before the startling evidence recently obtained from the star in Cygnus had been thought of, I thus indicated the probable effects of such an event:—

"When the earth has passed through, the richer portions (not the actual nuclei be it remembered) of meteor, systems, the meteors visible from even a single station have been counted by tens of thousands, and it has been computed that millions must have fallen upon the whole earth. These were meteors following in the trains of very small comets. If a very large comet followed by no denser a flight of meteors, but each meteoric mass much larger, fell directly upon the sun, it would not be the outskirts but the nucleus of

* See ECLECTIC for May, 1877.

the meteoric train which would impinge upon him. They would number thousands of millions. The velocity of downfall of each mass would be more than 360 miles per second. And they would continue to pour in upon him for several days in succession, millions falling every hour. It seems not improbable that under the tremendous and long-continued meteoric hail, his whole surface would be caused to glow as intensely as that small part whose brilliancy was so surprising in the observation made by Carrington and Hodgson. In that case our sun, seen from some remote star whence ordinarily he is invisible, would shine out as a new sun for a few days, while all things living, on our earth and whatever other members of the solar system are the abode of life, would inevitably be destroyed."

There are, indeed, reasons for believing, not only, as I have already indicated, that the outburst in the sun was caused by the downfall of meteoric masses, but that those masses were following in the train of a known comet, precisely as the November meteors follow in the train of Tempel's comet (II., 1866). For we know that November meteoric displays have been witnessed for five or six years after the passage of Tempel's comet, in its thirty-three year orbit, while the August meteoric displays have been witnessed fully one hundred and forty years after the passage of their comet (II., 1862).^{*} Now only sixteen years before the solar outburst witnessed by Carrington and Hodgson, a magnificent comet had passed even closer to the sun than either Tempel's comet or the second comet of 1862 approached the earth's orbit. That was the famous comet of the year 1843. Many of us remember that wonderful object. I was but a child myself when it appeared, but I can well remember its amazing tail, which in March, 1843, stretched half-way across the sky.

"Of all the comets on record," says Sir J. Herschel, "that approached nearest the sun; indeed it was at first supposed that it had actually grazed the sun's surface, but it proved to have just missed by an interval of not more than 80,000 miles—about a third of the distance of the moon from the earth, which (in

such a matter) is a very close shave indeed to get clear off."

We can well believe that the two meteors which produced the remarkable outburst of 1859 may have been stragglers from the main body following after that glorious comet. I do not insist upon the connection. In fact I rather incline to the belief that the disturbance in 1859, occurring as it did about the time of maximum sun-spot frequency, was caused by meteors following in the train of some as yet undiscovered comet, circuiting the sun in about eleven years, the spots themselves being, I believe, due in the main to meteoric downfalls. There is greater reason for believing that the great sun-spot which appeared in June, 1843, was caused by the comet which three months before had grazed the sun's surface. As Professor Kirkwood of Bloomington, Indiana, justly remarks, had this comet approached a little nearer, the resistance of the solar atmosphere would probably have brought the comet's entire mass to the solar surface. Even at its actual distance it must have produced considerable atmospheric disturbance. But the recent discovery, that a number of comets are associated with meteoric matter travelling in nearly the same orbits, suggests the inquiry whether an enormous meteorite following in the comet's train, and having a somewhat less perihelion distance, may not have been precipitated upon the sun, thus producing the great disturbance observed so shortly after the comet's perihelion passage.

Let us consider now the evidence obtained from the star in Cygnus, noting especially in what points it resembles, and in what points it differs from, the evidence afforded by the star in the crown.

The new star was first seen by Professor Schmidt at a quarter to six on the evening of November 24. It was then shining as a star of the third magnitude, in the constellation of the Swan, not very far from the famous but faint star ϵ Cygni, which, first of all the stars in the northern heavens, had its distance determined by astronomers. The three previous nights had unfortunately been dark; but Schmidt is certain that on November 20 the star was not visible. At midnight, November 24, its light was very yellow, and it was somewhat brighter than the well-known star Eta Pegasi, which marks the fore-arm of

^{*} It may seem strange to say that one hundred and forty years after the passage of a comet which last passed in 1862, and was then first discovered, August meteors have been seen. But in reality, as we know the period of that comet to be about one hundred and fifty years, we know that the displays of the years 1840, 1841, &c., to 1850, must have followed the preceding passage by about that interval of time.

the Flying Horse. Schmidt sent news of the discovery to Leverrier at Paris; but neither he nor Leverrier telegraphed the news, as they should have done, to Greenwich, Berlin, or the United States. Many precious opportunities for observing the spectrum of the new-comer at the time of its greatest brilliancy were thus lost.

The observers at Paris did their best to observe the spectrum of the star, and the all-important changes in the spectrum. But they had unfavorable weather. It was not till December 2 that the star was observed at Paris, by which time the color, which had been very yellow on November 24, had become "greenish, almost blue." The star had also then sunk from the third to far below the fourth magnitude. It is seldom that science has to regret a more important loss of opportunity than this. What we want specially to know is the nature of the spectrum given by this star when its light was yellow; and this we can now never know. Nor are the outbursts of new stars so common that we may quickly expect another similar opportunity, even if any number of other new stars should present the same series of phenomena as the star in Cygnus.

On December 2, the spectrum, as observed by M. Cornu, consisted almost entirely of bright lines. On December 5, he determined the position of these lines, though clouds still greatly interfered with his labors. He found three bright lines of hydrogen, the strong double sodium line in the orange-yellow, the triple magnesium line in the yellow-green, and two other lines—one of which seemed to agree exactly in position with a bright line belonging to the solar corona. All these lines were shining upon the rainbow-tinted background of the spectrum, which was relatively faint. He drew the conclusion that in chemical constitution the atmosphere of the new star coincided exactly with the solar sierra.

Herr Vogel's observations commenced on December 5, and were continued at intervals until March 10, when the star had sunk to below the eighth magnitude.

Vogel's earlier observations agreed well with Cornu's. He remarks, however, that Cornu's opinion as to the exact resemblance of the chemical constitution of the star's atmosphere with that of the sierra is not just, for both Cornu and himself noticed one line which did not correspond

with any line belonging to the solar sierra; and this line eventually became the brightest line of the whole spectrum. Comparing his own observations with those of Cornu, Vogel points out that they agree perfectly with regard to the presence of the three hydrogen lines, and that of the brightest line of the air spectrum (belonging to nitrogen), or the principal line of the spectrum of nebulae. This is the line which has no analogue in the spectrum of the sierra.

We have also observations by F. Secchi, at Rome, Mr. Copeland at Dunecht, and Mr. Backhouse of Sunderland, all agreeing in the main with the observations made by Vogel and Cornu. In particular, Mr. Backhouse observed, as Vogel had done, that whereas in December the greenish-blue line of hydrogen, F, was brighter than the nitrogen line (also in the green-blue, but nearer the red end than F), on January 6 the nitrogen line was the brightest of all the lines in the spectrum of the new star.

Vogel, commenting on the results of his observations up to March 10, makes the following interesting remarks (I quote, with slight verbal alterations, from a paraphrase in a weekly scientific journal):—

"A stellar spectrum with *bright* lines is always a highly-interesting phenomenon for any one acquainted with stellar spectrum analysis, and well worthy of deep consideration. Although in the chromosphere (sierra) of our sun, near the limb, we see numerous bright lines, yet only dark lines appear in the spectrum whenever we produce a small star-like image of the sun, and examine it through the spectroscope. It is generally believed that the bright lines in some few star-spectra result from gases which break forth from the interior of the luminous body, the temperature of which is higher than that of the surface of the body—that is, the phenomenon is the same sometimes observed in the spectra of solar spots, where incandescent hydrogen rushing out of the hot interior becomes visible above the cooler spots through the hydrogen lines turning bright. But this is not the only possible explanation. We may also suppose that the atmosphere of a star, consisting of incandescent gases, as is the case with our own sun, is on the whole cooler than the nucleus, but with regard to the latter is extremely large. I cannot well imagine how the phenomenon can last for any long period of time if the former hypothesis be correct. The gas breaking forth from the hot interior of the body will impart a portion of its heat to the surface of the body, and thus raise the temperature of the latter; consequently the difference of temperature between the incandescent gas and the surface of the body will soon be insufficient to

produce bright lines; and these will disappear from the spectrum. This view applies perfectly to stars which suddenly appear and soon disappear again, or at least increase considerably in intensity—that is, it applies perfectly to so-called new stars in the spectra of which bright lines are apparent, if the hypothesis presently to be mentioned is admitted for their explanation. For a more stable state of things the second hypothesis seems to be far better adapted. Stars like Beta Lyrae, Gamma Cassiopeiae, and others, which show the hydrogen lines and the sierra D line bright on a continuous spectrum, with only slight changes of intensity, possess, according to this theory, atmospheres very large relatively to their own volume, the atmospheres consisting of hydrogen and that unknown element which produces the D line.* With regard to the new star, Zöllner, long before the progress lately made in stellar physics by means of spectrum analysis, deduced from Tycho's observations of the star called after him, that on the surface of a star, through the constant emission of heat, the products of cooling, which in the case of our sun we call sun-spots, accumulate so that finally the whole surface of the body is covered with a colder stratum, which gives much less light or none at all. Through a sudden and violent tearing up of this stratum the interior incandescent materials which it encloses must naturally break forth, and must in consequence, according to the extent of their eruption, cause larger or smaller patches of the dark envelope of the body to become luminous again. To a distant observer such an eruption from the hot and still incandescent interior of a heavenly body must appear as the sudden flashing up of a new star. That this evolution of light may under certain conditions be an extremely powerful one, could be explained by the circumstance that all the chemical compounds which, under the influence of a lower temperature, had already formed upon the surface, are again decomposed through the sudden eruption of these hot materials, and that this decomposition, as in the case of terrestrial substances, takes place under evolution of light and heat. Thus the bright flashing-up is not only ascribed to the parts of the surface which through the eruption of the incandescent matter have again become luminous, but also to a simultaneous process of combustion, which is initiated through the colder compounds coming into contact with the incandescent matter."

Vogel considers that Zöllner's hypothesis has been confirmed in its essential points by the application of spectrum analysis to the stars. We can recognize from the spectrum different stages in the

process of cooling, and in some of the fainter stars we perceive indeed that chemical compounds have already formed, and still exist. As to new stars, again, says Vogel, Zöllner's theory seems in nowise contradicted

"by the spectral observations made on the two new stars of 1866 and 1876. The bright continuous spectrum, and the bright lines only slightly exceeding it at first" (a description, however, applying correctly only to the star of 1876), "could not be well explained if we only suppose a violent eruption from the interior, which again rendered the surface wholly or partially luminous; but are easily explained if we suppose that the quantity of light is considerably augmented through a simultaneous process of combustion. If this process is of short duration, then the continuous spectrum, as was the case with the new star of 1876, will very quickly decrease in intensity down to a certain limit, while the bright lines in the spectrum, which result from the incandescent gases that have emanated in enormous quantities from the interior, will continue for some time."

It thus appears that Herr Vogel regarded the observations which had been made on this remarkable star up to March 10 as indicating that first there had been an outburst of glowing gaseous matter from the interior, producing the part of the light which gave the bright lines indicative of gaseity, and that then there had followed, as a consequence, the combustion of a portion of the solid and relatively cool crust, causing the continuous part of the spectrum. We may compare what had taken place, on this hypothesis, to the outburst of intensely hot gases from the interior of a volcanic crater, and the incandescence of the lips of the crater in consequence of the intense heat of the out-rushing gases. Any one viewing such a crater from a distance, with a spectroscopic, would see the bright lines belonging to the out-rushing gases superposed upon the continuous spectrum due to the crater's burning lips. Vogel further supposes that the burning parts of the star soon cooled, the majority of the remaining light (or at any rate the part of the remaining light spectroscopically most effective) being that which came from the glowing gases which had emanated in vast quantities from the star's interior.

"The observations of the spectrum show beyond doubt," he says, "that the decrease in the light of the star is in connection with the cooling of its surface. The violet and blue parts decreased more rapidly in intensity

* The D line, properly speaking, as originally named by Fraunhofer, belongs to sodium. The line spoken of above as the sierra D line is one close by the sodium line, and mistaken for it when first seen in the spectrum of the colored prominences as a bright line. It does not appear as a dark line in the solar spectrum.

than the other parts ; and the absorption bands which crossed the spectrum have gradually become darker and darker."

The reasoning, however, is not altogether unsatisfactory, is by no means so conclusive as Herr Vogel appears to think. It is not clear how the incandescent portion of the surface could possibly cool in any great degree while enormous quantities of gas more intensely heated (by the hypothesis) remained around the star. The more rapid decrease in the violet and blue parts of the spectrum than in the red and orange is explicable as an effect of absorption, at least as readily as by the hypothesis that burning solid or liquid matter had cooled. Vogel himself could only regard the other bands which crossed the spectrum as absorption bands. And the absorption of light from the continuous spectrum in these parts (that is, not where the bright lines belonging to the gaseous matter lay) could not possibly result from absorption produced by those gases. If other gases were in question, gases which, by cooling with the cooling surface, had become capable of thus absorbing light from special parts of the spectrum, how is it that before, when these gases were presumably intensely heated, they did not indicate their presence by bright bands? Bright bands, indeed, were seen, which eventually faded out of view, but these bright bands did not occupy the position where, later on, absorption bands appeared.

The natural explanation of what had thus far been observed is different from that advanced by Vogel, though we must not assume that because it is the natural, it is necessarily the true explanation. It is this—that the source of that part of the star's light which gave the bright-line spectrum, or the spectrum indicative of gaseity, belongs to the normal condition of the star, and not to gases poured forth in consequence of some abnormal state of things from the sun's interior. We should infer naturally, though again I say not *therefore* correctly, that if a star spectroscopically had been directed upon the place occupied by the new star before it began to shine with unusual splendor, the bright-line spectrum would have been obtained. Some exceptional cause would then seem to have aroused the entire surface of the star to shine with a more intense bright-

ness, the matter thus (presumably) more intensely heated being such as would give out the combined continuous and bright-line spectrum, including the bright lines which, instead of fading out, shone with at least relatively superior brightness as the star faded out of view. The theory that, on the contrary, the matter giving these more persistent lines was that whose emission caused the star's increase of lustre, seems at least not proven, and I would go so far as to say that it accords ill with the evidence.

The question, be it noted, is simply whether we should regard the kind of light which lasts longest in this star as it fades out of view as more probably belonging to the star's abnormal brightness or to its normal luminosity. It seems to me there can be little doubt that the persistence of this part of the star's light points to the latter rather than to the former view.

Let it also be noticed that the changes which had been observed thus far were altogether unlike those which had been observed in the case of the star in the Northern Crown, and therefore cannot justly be regarded as pointing to the same explanation. As the star in the Crown faded from view, the bright lines indicative of glowing hydrogen died out, and only the ordinary stellar spectrum remained. In the case of the star in the Swan, the part of the spectrum corresponding to stellar light faded gradually from view, and bright lines only were left, at least as conspicuous parts of the star's spectrum. So that whereas one orb seemed to have faded into a faint star, the other seemed fading out into a nebula,—not merely passing into such a condition as to shine with light indicative of gaseity, but actually so changing as to shine with light of the very tints (or more strictly of the very wave-lengths) observed in all the gaseous nebulae.

The strange eventful history of the new star in Cygnus did not end here, however. We may even say, indeed, that it has not ended yet. But another chapter can already be written.

Vogel ceased from observing the star in March, precisely when observation seemed to promise the most interesting results. At most other observatories, also, no observations were made for about half

a year. At the Dunecht Observatory* pressure of work relating to Mars interfered with the prosecution of those observations which had been commenced early in the year. But on September 3, Lord Lindsay's 15-inch refractor was directed upon the star. A star was still shining where the new star's yellow lustre had been displayed last November; but now the star shone with a faint blue color. Under spectroscopic examination, however, the light from this seeming blue star was found not to be star-light, properly speaking, at all. It formed no rainbow-tinted spectrum, but gave light of only a single color. The single line now seen was that which at the time of Vogel's latest observation had become the strongest of the bright lines of the originally complex spectrum of the so-called new star. It is the brightest of the lines given by the gaseous nebulae. In fact, if nothing had been known about this body before the spectroscopic observation of September 3 was made, the inference from the spectrum given by the blue star would undoubtedly have been that the object is in reality a small nebula of the planetary sort, very similar to the one close by the pole of the ecliptic, which gave Huggins the first evidence of the gaseity of nebulae, but very much smaller. I would specially direct the reader's attention, in fact, to Huggins's account of his observation of that planetary nebula in the Dragon. "On August 19, 1864," he says, "I directed the telescope armed with the spectrum apparatus to this nebula. At first I suspected some derangement of the instrument had taken place, for no spectrum was seen, but only" a single line of light. "I then found that the light of this nebula, unlike any other extra-terrestrial light which had yet been subjected by me to prismatic analysis, was not composed of light of different refrangibilities, and therefore could not form a spectrum. A great part of the light from this nebula is monochromatic, and after passing through the prisms remains concentrated in a bright line." A more careful examination showed that not far from the bright line was a much fainter line; and beyond this, again, a third exceed-

ingly faint line was seen. The brightest of the three lines was a line of nitrogen corresponding in position with the brightest of the lines in the spectrum of our own air. The faintest corresponded in position with a line of hydrogen. The other has not yet been associated with a known line of any element. Besides the faint lines, Dr. Huggins perceived an exceedingly faint continuous spectrum on both sides of the group of bright lines; but he suspected that this faint spectrum was not continuous, but crossed by dark spaces. Later observations on other nebulae induced him to regard this faint continuous spectrum as due to the solid or liquid matter of the nucleus, and as quite distinct from the bright lines into which nearly the whole of the light from the nebulae is concentrated. The fainter parts of the spectrum of the gaseous nebulae, in fact, correspond to those parts of the spectrum of the "new star" in Cygnus which last remained visible, before the light assumed its present monochromatic color.

Now let us consider the significance of the evidence afforded by this discovery—not perhaps hoping at once to perceive the full meaning of the discovery, but endeavoring to advance as far as we safely can in the direction in which it seems to point.

We have, then, these broad facts: where no star had been known, an object has for a while shone with stellar lustre, in this sense, that its light gave a rainbow-tinted spectrum not unlike that which is given by a certain order of stars; this object has gradually parted with its new lustre, and in so doing the character of its spectrum has slowly altered, the continuous portion becoming fainter, and the chief lustre of the bright-line portion shifting from the hydrogen lines to a line which, there is every reason to believe, is absolutely identical with the nebula nitrogen line; and lastly, the object has ceased to give any perceptible light, other than that belonging to this nitrogen line.

Now it cannot, I think, be doubted that, accompanying the loss of lustre in this orb, there has been a corresponding loss of heat. The theory that all the solid and liquid materials of the orb have been vaporized by intense heat, and that this vaporization has caused the loss of the star's light (as a lime-light might die out with the consumption of the lime, though

* Since this was written, I have learned that Mr. Backhouse of Sunderland announced similar results to those obtained at Dunecht, as seen a fortnight or so earlier.

the flame remained as hot as ever), is opposed by many considerations. It seems sufficient to mention this, that if a mass of solid matter, like a dead sun or planet, were exposed to an intense heat, first raising it to incandescence, and eventually altogether vaporising its materials, although quite possibly the time of its intensest lustre might precede the completion of the vaporisation, yet certainly, so soon as the vaporization was complete, the spectrum of the newly-vaporized mass would show multitudinous bright lines corresponding to the variety of material existing in the body. No known fact of spectroscopic analysis lends countenance to the belief that a solid or liquid mass, vaporized by intense heat, would shine thenceforth with monochromatic light.

Again, I think we are definitely compelled to abandon Vogel's explanation of the phenomena by Zöllner's theory. The reasons which I have urged above are not only strengthened severally by the change which has taken place in the spectrum of the new star since Vogel observed it, but an additional argument of overwhelming force has been introduced. If any one of the suns died out, a crust forming over its surface and this crust being either absolutely dark or only shining with very feeble lustre, the sun would still in one respect resemble all the suns which are spread over the heavens,—it would show no visible disc, however great the telescopic power used in observing it. If the nearest of all the stars were as large, or even a hundred times as large, as Sirius, and were observed with a telescope of ten times greater magnifying power than any yet directed to the heavens, it would appear only as a point of light. If it lost the best part of its lustre, it would appear only as a dull point of light. Now the planetary nebulae show discs, sometimes of considerable breadth. Sir J. Herschel, to whom and to Sir W. Herschel we owe the discovery and observation of nearly all these objects, remarks that, "the planetary nebulae have, as their name imports, a near, in some instances a perfect, resemblance to planets, presenting discs round, or slightly oval, in some quite sharply terminated, in others a little hazy or softened at the borders". . . Among the most remarkable may be specified one near the Cross, whose light is about equal to that of a star just visible to the naked eye, "its diameter about twelve

seconds, its disc circular or very slightly elliptic, and with a clear sharp, well-defined outline, having exactly the appearance of a planet, with the exception of its color, which is a fine and full blue, verging somewhat upon green." But the largest of these planetary nebulae, not far from the southernmost of the two stars called the Pointers, has a diameter of $2\frac{1}{2}$ minutes of arc, "which, supposing it placed at a distance from us not greater than that of the nearest known star of our northern heavens, would imply a linear diameter seven times greater than that of the orbit of Neptune." The actual volume of this object, on this assumption, would exceed our sun's ten million million times. No one supposes that this planetary nebula, shining with a light indicative of gaseity, has a mass exceeding our sun's in this enormous degree. It probably has so small a mean density as not greatly to exceed, or perhaps barely to equal, our sun in mass. Now though the "new star" in Cygnus presented no measurable disc, and still shines as a mere blue point in the largest telescope, yet inasmuch as its spectrum associated it with the planetary and gaseous nebulae, which we know to be much larger bodies than the stars, it must be regarded, in its present condition, as a planetary nebula, though a small one; and since we cannot for a moment imagine that the monstrous planetary nebulae just described are bodies which once were suns, but whose crust has now become non-luminous, while around it masses of gas shine with a faint luminosity, so are we precluded from believing that this smaller member of the same family is in that condition.

It is conceivable (and the possibility must be taken into account in any attempt to interpret the phenomena of the new star) that when shining as a star, the new orb, so far as this unusual lustre was concerned, was of sunlike dimensions. For we cannot tell whether the surface which gave the strong light was less or greater than, or equal to, that which is now shining with monochromatic light. Very likely, if we had been placed where we could have seen the full dimensions of the planetary nebula as it at present exists, we should have found only its nuclear part glowing suddenly with increased lustre, which, after very rapidly attaining its maximum, gradually died out again, leaving

the nebula as it had been before. But that the mass now shining with monochromatic light is, I will not say enormously large, but of exceedingly small mean density, so that it is enormously large compared with the dimensions it would have if its entire substance were compressed till it had the same mean density as our own sun, must be regarded as, to all intents and purposes, certain.

We certainly have not here, then, the case of a sun which has grown old and dead and dark save at the surface, but within whose interior fire has still remained, only waiting some disturbing cause to enable it for a while to rush forth. If we could suppose that in such a case there *could* be such changes as the spectroscopist has indicated,—that the bright lines of the gaseous outbursting matter would, during the earlier period of the outburst, show on a bright continuous background, due to the glowing lips of the opening through which the matter had rushed, but later would shine alone, becoming also fewer in number, till at last only one was left,—we should still find ourselves confronted with the stupendous difficulty that that single remaining line is the bright line of the planetary and other gaseous nebulae. Any hypothesis accounting for its existence in the spectrum of the faint blue starlike object into which the star in Cygnus has faded ought to be competent to explain its existence in the spectrum of those nebulae. But *this* hypothesis certainly does not so explain its existence in the nebular spectrum. The nebulae cannot be suns which have died out save for the light of gaseous matter surrounding them, for they are millions, or rather millions of millions, of times too large. If, for instance, a nebula, like the one above described as lying near the southernmost Pointer, were a mass of this kind, having the same mean density as the sun, and lying only at the distance of the nearest of the stars from us, then not only would it have the utterly monstrous dimensions stated by Sir J. Herschel, but it would in the most effective way perturb the whole solar system. With a diameter exceeding seven times that of the orbit of Neptune, it would have a volume, and therefore a mass, exceeding our sun's volume and mass more than eleven millions of millions of times. But its distance on this assumption would be only about two hundred

thousand times the sun's, and its attraction reduced, as compared with his, on this account only forty thousand millions of times. So that its attraction on the sun and on the earth would be greater than his attraction on the earth, in the same degree that eleven millions are greater than forty thousand,—or two hundred and seventy-five times. The sun, despite his enormous distance from such a mass, would be compelled to fall very quickly into it, unless he circuted (with all his family) around it in about one sixteenth of a year, which most certainly he does not do. Nor would increasing the distance at which we assume the star to lie have any effect to save the sun from being thus perturbed, but the reverse. If we double for instance our estimate of the nebula's distance, we increase eightfold our estimate of its mass, while we only diminish its attraction on our sun fourfold on account of increased distance; so that now its attraction on our sun would be one-fourth its former attraction multiplied by eight, or twice our former estimate. We cannot suppose the nebula to be much nearer than the nearest star. Again, we cannot suppose that the light of these gaseous nebulae comes only from some bright orb within them of only starlike apparent dimensions, for in that case we should constantly recognize such starlike nucleus, which is not the case. Moreover, the bright-line spectrum from one of these nebulae comes from the whole nebula, as is proved by the fact that if the slit be opened it becomes possible to see three spectroscopic images of the nebula itself, not merely the three bright lines.

So that, if we assume the so-called star in Cygnus to be now like other objects giving the same monochromatic spectrum,—and this seems the only legitimate assumption,—we are compelled to believe that the light now reaching us comes from a nebulous mass, not from the faintly luminous envelope of a dead sun. Yet, remembering that when at its brightest this orb gave a spectrum resembling in general characteristics that of our other stars or suns, and closely resembling even in details that of stars like Gamma Cassiopeiæ, we are compelled by parity of reasoning to infer that when the so-called new star was so shining, the greater part of its light came from a sunlike mass. Thus, then, we are led to the conclusion that in the case of this

body we have a nucleus or central mass of matter, and that around this central mass there is a quantity of gaseous matter, resembling in constitution that which forms the bulk of the other gaseous nebulae. The denser nucleus ordinarily shines with so faint a lustre that the continuous spectrum from its light is too faint to be discerned with the same spectroscopic means by which the bright lines of the gaseous portion are shown; and the gaseous portion ordinarily shines with so faint a lustre that its bright lines would not be discernible on the continuous background of a stellar spectrum. Through some cause unknown,—possibly (as suggested in my article on the earlier history of this same star in my “Myths and Marvels of Astronomy”) the rush of a rich and dense flight of meteors upon the central mass,—the nucleus was roused to a degree of heat far surpassing its ordinary temperature. Thus for a time it glowed as a sun. At the same time the denser central portions of the nebulous matter were also aroused to intenser heat, and the bright lines which ordinarily (and certainly at present) would not stand out bright

against the rainbow-tinted background of a stellar spectrum, showed brightly upon the continuous spectrum of the new star. Then as the rush of meteors upon the nucleus and the surrounding nebulous matter ceased,—if that be the true explanation of the orb’s accession of lustre,—or as the cause of the increase of brightness, whatever that cause may have been, ceased to act,—the central orb slowly returned to its usual temperature, the nebulous matter also cooling, the continuous spectrum slowly fading out, the denser parts of the nebulous matter exercising also a selective absorption (explaining the bands seen in the spectrum at this stage) which gradually became a continuous absorption—that is, affected the entire spectrum. Those component gases, also, of the nebulous portion which had for a while been excited to sufficient heat to show their bright lines, cooled until their lines disappeared, and none remained visible except for a while the three usual nebular lines, and latterly (owing to still further cooling) only the single line corresponding to the monochromatic light of the fainter gaseous nebulae.—*Contemporary Review.*

COUNT CAVOUR.

OF the four men who made a United Italy, Mazzini, Garibaldi, Cavour, Victor Emmanuel, one only is now left. To distinguish their several parts in the great work will be the task of future historians; meanwhile, we have now the opportunity of studying the life and character of the statesman whose aid was indispensable to it, in two recent biographies, both French.*

We turn from the glowing pages of M. de la Rive to the cold unimpassioned ones of M. de Mazade, and feel that, after all, the portrait which they both attempt to draw is but little affected by varying methods of treatment. The lines of the man’s individuality are so strongly marked, his career was so exceptional, its arena so majestic, its results are so great, the forces he had to contend with became so pliant to his hand, that if his story is related with any measure of truth, it can hardly fail to possess the interest of a romance,

or to exhibit him with the attractions of a hero. There is no veil that friendship need throw over his conduct, or that criticism need seek to tear away.

Camille Benso, Count de Cavour, born at Turin, August 1, 1810, and named after his sponsor, Prince Camille de Borghese, was the second son of Marquis Michele Benso de Cavour. The family of Bensì was of Saxon origin, the founder of its Italian branch having entered Italy in the twelfth century, as a follower of Frederick Barbarossa (with whom he fought against the Lega Lombarda), and after a pilgrimage to the Holy Land, married Donna Bentia, heiress of the Chieri family, and, with other fiefs, obtained the estate of Santena. Gradually attaching themselves more and more to the Dukes of Savoy, as the dominion of those princes became more settled, and the Bensì grew more disposed to regard the foster-land of their family as its home, the sons of the house were found from time to time engaged in important contests, and often taking a conspicuous place in the court, the council or the camp,

* English translations of both have lately been published.

long ere the genius and courage of their race attained its point of culmination in Camille. The title of Cavour, to which he has given such undying fame, is derived from a ruined castle on an immense rock, rising from a level plain in the province of Pignerol, with a village at its foot, and was conferred, with the fief annexed to it, as an extinct marquisate, on one of the lords of Santena in the middle of the last century, by Charles Emmanuel the Third, second king of Sardinia. All these particulars have probably more interest for the world in general than they had for Cavour, who, as M. de Mazade tells us in a note, was wont to be both indifferent and sceptical about traditions concerning the antiquity or origin of his family, whose greatest glory was yet to be reflected from himself.

In his earliest years there was little that calls for remark, if we except 'an ardent desire to please' and the faculty of pleasing—neither very uncommon qualities in themselves, but not very commonly combined with the severe truthfulness and uncompromising independence of character which distinguished Camille. He loved romping and disliked study as most healthy and many intelligent children do, and both for the same reason—from the superfluity rather than the lack of energy. No man ever displayed more zeal for knowledge or more steadfast application in its acquirement than did Cavour in after life, when conscious of a defective education, and anxious to repair its omissions. But the education must have been liberal indeed that could then have seemed sufficient to his eager and capacious mind; and though it is easy to understand his regret for the narrowness and too special nature of his studies at the Military School, they perhaps did as much for him in training and invigorating his intellect as might have been effected in the way of widening it by more general pursuits. The education of an ordinary man is of immeasurable importance, that of an extraordinary one matters far less. With the former everything depends upon it, for it moulds him; with the latter it is but a portion of the 'environment' whose disadvantages he surmounts. One characteristic little anecdote deserves to be recorded of the six-year-old Camille. On arriving at the house of a friend after a long journey, he complained bitterly of the bad horses supplied to his party on the

way, and declared that the man who was to blame for them ought to be dismissed. 'Then you must apply to the Syndic,' he was told; and, nothing daunted, he did so in person the next day, returning with the full assurance that his demand would be complied with. At ten years of age he entered the Military Academy, and was soon afterwards appointed page to the Prince de Carignan, an honor reserved for the sons of noble families, and much coveted, as a rule, on account of the privileges it entailed. But so irksome to him were its restraints, so openly did he chafe under them, that he was speedily degraded from the position, and expressed more than satisfaction in the loss of a dignity that he despised. He won worthier honors as a student, closing his school life at sixteen with such brilliant success in the examination, that, at the urgent request of one of the Professors, the rule which deferred an officer's commission till he was twenty was set aside in his favor, and he left the Academy as sub-lieutenant of engineers. Led by his duty to service in various garrisons, he conceived an early and lasting preference for Genoa, always leaving with reluctance and revisiting with delight a sphere where the fuller life and ease of society seemed doubly charming in contrast with the head-quarters of routine and prejudice at Turin. To a youth so gifted, lively, and fascinating withal, every door stood open. At Genoa he was surrounded by friends, and by many opportunities for improvement, of which he eagerly availed himself. It was a bright phase of existence which in 1830 came to an unexpected end. The Paris Revolution of that year struck the liberal chords of his nature; he took no pains to conceal his interest in the event; his unguarded expressions of sympathy for the French recalled but too vividly to Charles Albert's mind the memory of his former restive page, and Cavour was in disgrace again. He was punished by being sent to superintend the repairs of the fortress at Bard, without any companion of his own rank, or any occupation for his mental powers. After six months of this lonely banishment—all but 'solitary confinement' as it was for him—he sent in his resignation. It was accepted without demur, and his brief career as a soldier terminated.

His choice of another was strange

(so, at least, it appears, unless we accept the fact that, as affairs then stood in Piedmont, there was little choice in the matter); he became a farmer! No previous task or pursuit had prepared the way for this, and when he began his apprenticeship on one of the family estates (at Grenzano, in the province of Alba), he hardly knew, it is said, a cabbage from a turnip! Two years later he undertook the management of Léri, a large neglected estate then recently purchased by his relatives. There, in a flat country, surrounded by rice-fields (scenes forever endeared to him), he led for fifteen years the simple life of an agriculturist, apparently happy and content, so far, at any rate, as his own lot was concerned. But Cavour, in his retired homestead, was no mere plodding farmer, busied in his private interests alone; he was already a patriot, intent on the interests of agriculture and of his country at large. Neither was he the man to run on in the established grooves of farming more than of anything else, unless there were some excellent reason for doing so; and this was little likely to be the case where science was dreaded and enterprise unknown. His aim was to develop the resources of the soil; where it failed in produce, to find and remedy the reasons of its failure; where it yielded well to make it yield still better. He turned every improvement in tillage, every discovery in agricultural chemistry, to account; one undertaking gave rise to another; steamboats on the Lago Maggiore; a railway company; steam-mills; manufactories for manure; and a bank at Turin; all owed their existence to his exertions at this time, and every new project seemed to engross his full attention.

Consistently adhering to his plan, M. de Mazade passes rapidly over the earlier and obscurer portion of his hero's story, hardly even pausing on the fifteen years of his retirement at Léri. Yet the importance of those years in the life of such a man, and at such a period of his life, can scarcely be rated too high. Grant that they were inevitable, that at the best there was nothing for him but the sorry choice between inaction and an uncongenial pursuit, still, looked at in any way, their significance is great—equally so, indeed, whether we consider them in relation to their cause or their result. Occurring, as they did, at that period which in the lives

of most men is replete with turmoil and excitement, with the rise and fall of many hopes, the weaving of many schemes, the fading of many visions, and covering one of the most momentous transitions of existence—that from youth to manhood—what strength of character do they imply! how, beyond measure, must they have reinforced it! Compare them, too—these fifteen years at Léri—with those that preceded them, and with the fifteen years that followed. Consider the youth who entered on them, full of life and fire, sensible of all the charms of brilliant society, of social and intellectual success; the man who emerged from them, clear-sighted, daring, calm, ripe for the highest cares of State, what volumes do they speak of the self-discipline brought to them, of that which they matured!

Meanwhile events were converging to a climax in other parts of Europe, and the 'obscure citizen' of Piedmont (so he designated himself), cognisant of all around him on his visits to Paris and Geneva, and to England in 1835 and 1843, did not fail to note their tendency. While apparently immersed in the gaieties of the French capital, this many-sided being was keenly observant of its political divisions, was predicting, as an aristocrat, the fall of his own order, and speculating, without an accent of regret, on the good or evil that the advent of Democracy would bring. In England, he studied our political and social institutions, our various branches of industry, especially agriculture, our national conduct and character. For all these, we may remark, in passing, his admiration, though very warm, was neither unbounded nor blind. The Englishman always seemed to Cavour too much of a machine, and there was a certain indescribable something which he found in Parisian *salons* and missed in English society. More than this, he confessed himself unable to believe in our political honesty. Be these things as they might, however, his first step on his return to Turin in 1835, was to remedy evils similar to those which, in England, our new Poor Law was then trying to meet; and, in connection with other influential men, he founded infant asylums in Piedmont. But his zeal in this work, which was very dear to him, drew so much attention, that the Sardinian Government took umbrage, and ere long he perceived that he could

only secure the welfare of the undertaking by withdrawing, sorely against his will, from active participation in it. Full of thoughts and anxieties, after his second visit to England, he sought relief in his pen, and published two political essays, one on Ireland (containing some keen-sighted prophecies which were accurately fulfilled), and one on the abolition of duties on corn in England. We need not turn to the 'Italy' of that time—crushed, dismembered, and effete, a 'kingdom' only on the map—in order to understand how precious must have been to Cavour the refreshment of 'a salubrious intellectual atmosphere,' which, from 1835 to 1848, he annually enjoyed at Geneva. A glance at the condition of thought—religious, political and scientific—in his own Sardinia, will suffice. We cannot better realise this than by picturing to ourselves what it would be in Great Britain if the narrowest ecclesiastics, the most ignorant opponents, of science, the most bigoted Tories—in short, the fiercest enemies of every kind of progress, were permitted to have all their own way. The influence of the Jesuits was predominant; the system and spirit of Jesuitism—intolerance, *espionnage*, distrust—prevailed. No wonder that Cavour described Turin as 'an intellectual hell,' where science and intelligence were regarded as 'inventions of the devil.' Even for an agricultural society the royal sanction, in 1841, was with difficulty obtained; and still more objection was made to the formation of a whist club, set on foot by Cavour, after the fashion of London and Paris. It was enough that the minds of men, drawn, under any pretext, together might act like flint and steel. In the light struck out by their contact things might assume a new aspect, custom might cease to appear an all-sufficient reason for their continuance as they were. That Cavour, faithful to the *juste milieu* which, when only twenty-five, he had put before him as his aim, and a Conservative in his relation to revolutionists, should be a Liberal in relation to such a *régime* as this, was a matter of course. That under this *régime* he, courageous and enthusiastic, still preserved that *juste milieu* must always redound to his honor.

But in vain was every door to public life held closed against him. Surely, though quietly, the future statesman was coming to the front, his arena all but

ready for him. Perhaps it was some dim foreboding of this that caused Charles Albert to declare him the most dangerous man in his dominions, and the Austrian Government to keep a strict *surveillance* over him when he made a tour through Northern Italy so early as 1836. In December 1847, Cavour, with a few others, started, at Turin, a newspaper, the *Risorgimento*, of which he became the editor. At the moment of its appearance, the Liberal reforms of Pio Nono were exciting increased hatred of the Jesuits, and the Genoese were petitioning the King to expel them. In a meeting of men of all shades of opinion at Turin, the proposal that this petition should be supported there in its original form found general approval, but was opposed by Cavour, on the ground that it was useless to ask for reforms which led to nothing, and, granted or not, only disturbed the Government, which could not possibly go on as it was. Let them instead, he urged, demand a Constitution, in accordance with the progress of the times, and that before it was too late. This was too bold and unexpected a measure to be adopted at once, even had there been no secret jealousy of Cavour, or no suspicion of his Anglo-mania. It was resisted by the extreme Liberals, and lost. Covered with calumny, and defeated as he was, its author nevertheless beheld, two months later, the concession of all he had desired, when on February 8, 1848, the King, warned by the current of events, granted the *Statuto*, the charter of Italian liberty. Cavour was appointed a member of the commission for drawing up an electoral law, which was framed exactly on the suggestions of his own articles in the *Risorgimento*; but the temperate tone of that journal had rendered him unacceptable, as usual, to the extreme parties on both sides, and it was not till he had presented himself a second time as a candidate for election that he was returned as member for Turin. His political career thus at length initiated, his first object was to aid the consolidation and development of the new institutions. The calm which he saw to be needful for this end was broken by the revolution at Milan; he was among the foremost to call Sardinia to arms against Austria by means of the *Risorgimento*, and subsequently enrolled himself among the volun-

teers. Hardly, indeed, had the *Statuto Fondamentale* been signed by Charles Albert, ere half Europe was in a blaze of insurrections. Austria, enfeebled by revolution at Vienna, seemed for a short while likely to yield before Piedmont, victorious at Peschiera and Goito. But the political vane shifted; the little Sardinian kingdom found itself bereft of European support, anarchy within it and around; the Pope in flight from Rome, the Grand-Duke from Florence, and a strong democratic party hampering the action of Government at Turin. The armistice at Milan only complicated matters by bringing peace to a people defeated and depressed, and consequently less inclined than ever to trust the moderate measures which alone could place their liberties on a firm and lasting basis. The King was in despair, but Cavour was not. To the new Ministry, under his friend Alfieri, he gave his cordial support. Insulted in the Chamber, and attacked by the press, he still held his ground against the 'revolutionary measures' which he deemed contrary to the *Statuto*; and so early as November 16, 1848, he foretold, in the columns of the *Risorgimento*, that the revolutionary spirit of Europe would result in the elevation of Louis Napoleon to the throne of France! Throughout, Cavour was opposed alike to the people and the King (whose weakness led him to prefer extremes), and in the general election of 1849 his unpopularity was proved by his rejection. Backed now by a revolutionary majority, the new minister Gioberti discarded the principles for which Cavour had contended, soon to adopt them, however; and then Cavour eagerly defended with his pen the man who had done his utmost to deprive him of all other means of influence. Gioberti fell (and with him Cavour), to be succeeded for a brief and calamitous period by Rattazzi. To restore the Pope to Rome, and to Florence her Grand-Duke, was, in Gioberti's opinion, the first duty to be performed; war with Austria for independence, the next. The democratic party, adverse to all intervention, impatient only to break the armistice and plunge immediately into war, had now the reins of power. The King yielded to its pressure, and staked and lost all in one last throw on the fatal field of Novara, March 23, 1849. His army fought bravely; but, formed in great

measure of raw recruits, and without sufficient confidence in its cause, or at any rate in the motives that had hurried it to the field, it was easily panic-stricken, and beyond the power of its gallant officers to hold together. A crisis of tremendous import ensued. Genoa rose in revolution; Turin rang with cries of 'treason,' and with denunciations of a new armistice; but, with Austria on the Sesia, threatening Piedmont with actual invasion, or the alternative of a peace whose conditions were unknown, an armistice was indispensable. Charles Albert was in exile, and Victor Emmanuel, at the end of March 1849, found himself King of Sardinia with everything to begin again. Should he sign the *Statuto*, and be a 'constitutional' monarch? retain the tricolor and the scheme of independence?—or not? He made his choice for freedom, swore fidelity to the *Statuto*, and with his noble minister, Massimo d'Azeglio ('the Knight of Italy,' as M. de Mazade gracefully terms him), the young sovereign devoted himself to the salvation of his country. Twice did D'Azeglio (always upheld by the *Risorgimento*) dissolve the Chamber, ere he secured a majority on the Right, with Cavour, once more as representative of Turin, at its head. But there were smouldering discords in the section, and these became open and irreconcilable when, in March 1850, D'Azeglio, advised by Cavour, moved for the suppression of ecclesiastical tribunals and other privileges of the clergy. The motion was carried after a very effective speech from Cavour, who argued that the Church cannot in a free State expect to retain all the privileges it possessed when 'privilege constituted law.' The principle of 'a free Church in a free State,' which it was henceforth Cavour's avowed aim to carry out, may be variously appreciated according to the side from which it is regarded; but in any case it must be admitted that the abolition of abuses should be the first condition of freedom, and from this point at least neither the above step with regard to the *foro*, nor even the 'Rattazzi Law' of 1855, can be viewed as an infringement of it. It may be well to pause here for a moment, though at the cost of anticipating some portions of our narrative, in order to understand clearly the meaning of those now far-famed words, 'Libera Chiesa in Libero Stato,' as reiterated by Cavour.

With him they signified neither more nor less than the entire separation of the temporal and spiritual powers; the Pope was to have no jurisdiction over the State affairs of Piedmont (or of Italy, as it afterwards stood); the State no jurisdiction over the affairs of the Church. There was no bitterness in Cavour's relations with the ecclesiastical power; even no opposition to it, so long as it confined itself to the regulation of religious matters, and in dealing with these did not interfere with political matters, nor with social rights and justice. He considered the temporal power of the Papacy injurious alike to the interests of religion and of Italian nationality. As the whole problem of the mutual independence of Church and State was before his mind from the first, so it was always contemplated by him with the same characteristic temperance and breadth, the same clear view of what would constitute freedom for them both. When, in 1860-61, the time for its solution came, complicated as it was by the invasion of the Marches, and the necessity which he foresaw of consummating Italian independence by fixing the seat of government at Rome, he still aimed at making the Church appear to Europe and the Catholic world what she really appeared to himself—the gainer rather than the loser in a transaction which left the Papedom inviolate as a spiritual power, with full enjoyment of all ecclesiastical rights and honors, a large estate in the kingdom, and absolute possession of the Vatican; a transaction, in short, which, in Cavour's opinion, would 'establish the liberty of the Church on the broadest foundations.' That Catholicism should be deemed incompatible with liberty seemed to him an injustice; possibly it seemed more desirable to him than to the Church herself that this fallacy—if it was one—should be practically and irrevocably swept away. In all this he showed the habitual largeness of mind with which Rome could neither sympathise nor cope; and it was but natural that Cardinal Antonelli, when at the moment of the crisis he detected in the temper of Europe a loophole for escape, should resist him by all the means within his reach, and endeavor to hold back the Pope, more than half reconciled to his fate. The Church, Cavour believed, would benefit by her emancipation from the burden of the temporal power, and feel new life in tasting the reviving cup of liberty.

The King must ultimately be enthroned at Rome, but neither Italy nor Europe must see in his advent there an indication of the Pope's subjection to the State, or of interference with his spiritual rule; rather they must hail it as evidence of the total independence of both Church and State—'Libera Chiesa in Libero Stato.' This was the keynote of his policy, and it expressed exactly what he meant.

To return from our digression to the events of 1850 once more:—A few months after D'Azeglio's measure concerning the *foro*, Santa Rosa, a favorite member of the Cabinet, was deprived of the last sacraments of the Church because he refused to disavow on his death-bed the part he had taken in that matter. A strong reaction against the clergy ensued; the popular voice, gladly obeyed by the Premier, demanded Cavour, who, as the successor of Santa Rosa, at once became Minister of Agriculture, of the Navy, and of Commerce, to the amusement of the King, who prophesied that he would presently have every office in his hands, and proved right respecting all save one (that of Justice).

Cavour had once declared at Paris that if ever he were a minister he 'would make his principles triumph or resign,' and he religiously kept his word. To extend the commerce of his country, and to secure it by commercial treaties with other countries of Europe, even Austria not excluded; to give, by means of free trade, a fresh impetus to industry in every department, and especially in that of agriculture; in a word, to call into play all the resources of Piedmont, was now his incessant care; a mission which he steadfastly pursued in spite of calumny and opposition, and of all the distrust which lesser minds evince towards the genius and honesty which they cannot comprehend, the prescience and intuitions which they cannot gauge. With unflinching spirit and consummate tact he brought about reforms which had seemed unpalatable at first; himself attending to all the details of business, and doing an amount of work with an amount of zeal which would have been almost incredible in any other man. When he became Minister of the Navy he knew about as little of it as he had known of agriculture when he became a farmer; but speedily mastering the knowledge necessary for its administration, he resolved on making it efficient. But other cares, be-

side those of his own multifarious offices, devolved upon him. Brilliant as D'Azeglio was, he had not the force of Cavour, and the latter was soon, in everything but the name, the real leader of the Cabinet, consequently ever engaged with it in the attempt to reconcile the claims of the Church with the provisions of the *Statuto*; and in vain, for Rome pertinaciously refused to yield a step. Shortly after the *coup d'état* at Paris had produced a reactionary effect at Turin, Cavour, by his defence of a new law in favor of the press, offended the Right Centre, and propitiated the Left, whose leader, Rattazzi, proposed and supported by him, was appointed to the vacant Presidency of the Chamber. On this course, for which some of the Cabinet (though not D'Azeglio) himself severely blamed Cavour, a dissolution of Government followed, and he declined to join the new one. On his return from three months' absence in London and Paris, he found D'Azeglio on the point of retiring, and was commissioned by the King to form a ministry himself. But the old difficulty with Rome stood for the moment in the way. The Pope had intimated that Balbo was the man who would be acceptable to him (Balbo had voted against D'Azeglio in the matter of the *foro*); and Cavour told the King that he must either appoint Balbo or break with Rome. Balbo failed, however, both Count Revel and Alfieri refusing to take office with him: the King again sent for Cavour, empowered him to break with Rome, and bade him form a Cabinet. This was very soon done, chiefly from members of D'Azeglio's, to whom, when a vacancy occurred, Rattazzi was added, as Minister of Justice, and proved a most valuable ally.

'In the dreams of my youth,' Cavour had written to a lady friend at Geneva, 'I already saw myself Prime Minister of the Kingdom of Italy.' That kingdom did not yet exist, save in the ambitious visions of Cavour, but its creation was assured by his accession to power. With this event a new spirit was once more infused into every part of the administration. Treaties of commerce were completed, friendly relations were established with England and with France. For Austria the sword of Piedmont was still sheathed, but her hand was ever on its hilt. With Rome the old hostility endured, and became a fertile source of trial to Cavour.

The Senate and the Vatican mutually supported each other, and unless he would violate constitutional principles or yield, his only resource was to dissolve the Chamber. An appeal to the country gave him a majority, not an hour too soon. Abroad were 'rumors of wars;' famine and cholera, discontent, impatience, and vague fears at home. Cavour himself was cruelly calumniated, and his house, which had been open to all sufferers during the scarcity, was besieged by an angry mob. A yet severer conflict awaited him when it became a question whether Sardinia should take part in the Crimean War. Even Rattazzi and La Marmora threatened to resign, but the influence of England prevailed, and in the winter of 1854-5, an alliance, offensive and defensive, was concluded between Sardinia, England, and France, on the expressed condition that Sardinia should immediately send an army to the Crimea. In this step Cavour and his sovereign stood alone, opposed by the whole Cabinet and both sides of the Chamber. By the world at large it was looked upon as at best but a Quixotic adventure, while at Turin much harder names were bestowed upon it by the Left. Save the wild hope of 'wiping out the disgrace of Novara,' there seemed indeed to be every reason against the treaty; and though Cavour had gone too far in the preliminaries for its ratification to be refused without risk of offence to the greater contracting Powers, it was openly said in the debates that there would be 'an end of Piedmont and of Italy.' To Cavour personally, occupying for the moment almost the position of Dictator to the Senate, and perhaps alone able to discern the exigencies of the crisis, Europe in general imputed every motive that was base, while he dared not avow his true one—the assertion, viz. of that very 'Italy,' whose existence, if Sardinia were left out of the alliance, would really be imperilled. Without a share in the Crimean struggle, the small State of Piedmont could have had no representative at the Congress of Paris, Italy none to speak a word in her behalf. Neither France nor Austria mistook the meaning of his course, and the event completely justified Cavour; but a single hint of his object at this juncture would have roused alarm and ruined all. Critical, even abnormal for a Constitutional minister, as his situation was, there is perhaps

no epoch in his history when he appears more truly great, holding, as it were, the destiny of his country in the hollow of his hand, and staking everything he valued on one mighty throw, of which none could calculate the import but himself. Scarcely had he won this point when, by the introduction of what has ever since been known as the *Rattazzi Law*, he was plunged into one of the fiercest trials of his whole career. Mindful of the principle of 'a free Church in a free State,' Cavour would no more sanction the alienation of Church property than he would permit the illegal use or abuse of Church privileges; and the purpose of the new law, viz. to suppress some religious communities, and to apply their revenues to raising the incomes of the inferior secular clergy, was in full accordance with that ruling idea. But the measure raised a storm which very nearly overturned the Government; the ministers were accused of sacrilege, the people incensed against them; deaths in the Royal Family occurring at the time were declared by the priests to be a sign of the vengeance of Heaven; the Court itself was full of intrigues. The King and Cavour stood firm throughout, but it was at the cost of some precious friendships for the latter. Nevertheless, he remained more than ever the defender of true 'religious liberty,' whether on behalf of the poor *curés* in his own communion, or of a few scattered Protestants in Savoy, for whom he was careful to secure freedom of worship in their own way.

Meanwhile Sardinia had mourned the unhonored sacrifice of many a gallant son smitten down by disease in the Crimea, ere at length her hour of triumph came. Her brave little army, only 15,000 strong, was animated by one great idea;* and on the lines of the Tchernaya, August 16, 1855, it proved itself worthy, under La Marmora's guidance, of its place beside the forces of the Allies; it was victorious on the field of battle. Once again did Sardinia believe in Cavour, and when he visited Paris and London at the close of the year, he had good reason to know that Piedmont had not fought in vain; her name was held in honor, her sovereign

* 'Never mind,' said a young officer to a private soldier, who was struggling through deep mud in the trenches; 'it is with this mud that Italy is to be made!'

welcomed as a Constitutional monarch, who had made his country a small England in Italy. If Louis Napoleon, in one of the many interviews between Cavour and himself at the Tuileries, meant little or nothing by the words 'What can be done for Italy?' he should not have addressed them to the man whose soul was all on fire with that question, and who was never likely to forget that it had once been mooted thus. That Sardinia should be represented in the Congress of Paris, 1856, was, however, *de rigueur*. But what position was she to occupy? Here was a crucial point. Austria did her utmost to prevent her being represented at all, but none of the other Great Powers would coincide with this, and finally the envoy of Piedmont was admitted on the same footing as the rest. Once there, moreover, the presence of Cavour could not fail to make itself felt. But with Austria in the Council, how could the matter of Italian nationality be discussed? The days wore away, and its champion knew that the silence under which he chafed was inevitable; but meanwhile he had not been idle, either in or out of Congress. Every syllable he uttered when called on for his opinion had carried weight with it; his broad vision, his temperance, his clear insight, had done good service at the sittings; Russia was grateful for his attitude towards herself; France interested; England, if she could have forgiven the courtesy to Russia, might have been sympathetic. At last, April 8, his hour came. To the French plenipotentiary, Count Walewski, was committed the task of suggesting on that day 'an interchange of ideas' on various points 'waiting to be settled;' and he enumerated among them the occupation of Rome by the French troops, of the Legations by the Austrians, the situation of the kingdom of Naples, &c., &c. There was no mistaking the real question at issue, nor did the Austrian envoy (Count Buol) pretend to misunderstand it. He at once declined all discussion on Italian affairs, protesting the incompetency of the Congress for it. Walewski pointed out the 'abnormal' condition of Rome and the Papal States, living under foreign protection; Lord Clarendon that the Pontifical was the worst of all governments, and the urgent need of liberal reforms in accordance with the spirit of the age. Then it was Ca-

your's turn, and ably did he use it. Not only, he said, was the position of Rome and Naples 'abnormal'—that of the whole peninsula was so too: Austria, extending her power from the Ticino to Venice, with Ferrara, Bologna, Piacenza, and Parma in her grasp, 'destroy the equilibrium of Italy,' and was a permanent danger to Piedmont; and, facing Count Buol, he declared that the envoys of Sardinia thought it their duty to call attention to such abnormal conditions as resulted from 'an indefinite occupation of a great portion of Italy by Austrian troops.' Thus pleaded, in that august assembly, the name of Italy could no longer be unrecognised, nor her cause forgotten. To the representatives of France and England, Cavour, a few days later, expressed his conviction that the state of Piedmont was 'becoming insupportable;' and that, if nothing were done for her, she would be driven to take arms against Austria. Lord Clarendon, in a private conversation, told him that, whenever this occurred, he would see 'how energetically England would hasten to their aid!' But in reality Cavour was not popular in England at this period; he had been too suave to Russia in the matter of the Danubian Principalities; and for the first time, on visiting London after the Congress with the King, he was coldly received by the English. At Turin, on the contrary, for a brief while, his fame was at its zenith: Cavour, it was playfully said, was the name of Government, Constitution, and Chambers. Yet there, too, fresh troubles were in store, another reaction had set in. The new elections were unpropitious for the Ministry; an outbreak at Genoa under Mazzini led, at the end of 1857, to the retirement of Rattazzi then (Home Minister) from the Cabinet. Cavour, however, soon regained a majority in the Chamber, and henceforward became by degrees virtually sole ruler of affairs. Well was it for Italy at this juncture that his hand, and his only, lay upon her helm, for she was passing through one of those momentous crises when weak or divided counsels may be fatal. Already her people were looking to Turin for their union; but ere this could be accomplished, war with Austria was inevitable; and by extensive preparations, both military and naval, Cavour was leading his countrymen to desire it. They were indeed two busy years that

intervened between 1856 and 1858. The fortification of Alessandria, the creation of a great arsenal at Spezzia, the boring of the Mont Cenis Tunnel—these were no despicable undertakings. In this last achievement he took intense interest, both on account of the science it required (for of science he was extremely fond) and because by its means he looked forward, as he said, to bringing down the Alps.

The decisive struggle for consolidation and independence was only, as Cavour well knew, delayed; and meanwhile he was carefully strengthening his alliances. Between Russia and Piedmont their common hatred of Austria was a powerful bond, and in 1857, at the risk of offending England, Cavour cemented it still further by conceding to Russia the right of anchorage at Villafranca. To the Emperor Napoleon the idea of a free and united Italy was not new; he was secretly in favor of it, but his ministers seemed inclined to regard it differently. England was quite ready to give advice all round, but she would give nothing else, and particularly disliked the notion of France having anything to do with Italian affairs. There was not a little meaning in Lord Palmerston's sarcastic remark: 'Really, I did not expect Count Cavour to become Russian.' 'Tell Lord Palmerston,' was the pithy response, 'that I am Liberal enough not to be Russian, and too much so to be Austrian.' Cavour's position was in truth very difficult, but as usual he rose to the occasion. 'Diplomacy,' said Prince Metternich, 'is dying out; there is only one diplomatist in Europe, and; unfortunately, he is against us. I mean Count Cavour.' It was Cavour's own laughing boast that he had found out the art of deceiving diplomatists. 'I speak the truth,' he declared, 'and I am certain they will not believe me!' In January, 1858, the perplexities of the moment were increased by Orsini's attempt on the life of the French Emperor and Empress. 'If only,' cried Cavour, 'the assassin be not Italian!' But Orsini was a Roman revolutionist, escaped from his Austrian prison, and his crime was accredited to the principles disseminated by Cavour. The Papal Nuncio plainly told Napoleon that 'these were the results of the revolutionary passions fostered by Cavour.' France clamored for the abolition of the freedom of the press, and for general acts of protection

and repression at Rome, Turin, and elsewhere. The Emperor even hinted that if his demands were not complied with he should be 'constrained to lean upon Austria,' and in that case to abandon the dearest wish of his heart—the independence of Italy. By mingled dignity and cordiality on the part of the Sardinian King and Government the crisis was safely passed. Louis Napoleon resumed a calmer tone, and was contented with a law that did not interfere with liberties guaranteed by the *Statuto*—a law, nevertheless, not carried by Cavour without strenuous opposition.

How much the ill-advised attempt of Orsini had really to do with the events that followed, it is difficult, as in most instances of the kind, to know. Suffice it to say, that from his dungeon, face to face with death, he implored the Emperor to deliver his country, and weighted his prayer with the warning that the peace of Europe and of France 'was a chimera until Italy was free.' All Orsini's documents were transmitted by the French Emperor to Turin; and it was not long ere, from another source, which proved to be authentic, Cavour heard the proposals for a marriage between Prince Napoleon and the daughter of Victor Emmanuel; not long, either, before Dr. Conneau (doubtless on a pleasure excursion through Italy!) visited Cavour, and arranged for an interview between him and the Emperor at Plombières. Thither in the summer, ostensibly travelling for relaxation, Cavour, by way of Switzerland, repaired; and it was on this journey, famous for so many other reasons, that he carried away from the De la Rives at Pressinge the volume of Buckle's *History of Civilisation* which made such a profound impression on him. It denoted, he thought, an evolution in the English mind, remarkable in itself, and sure to entail remarkable results. 'If I were not a Prime Minister,' he said, 'I would write an article on that book.'

The meeting at Plombières was cordial and decisive. The Emperor only reserved it for himself to give the signal which should fire the train. In the reception at the Tuileries on New Year's Day, 1859, the gauntlet was accordingly thrown to Austria by means of a few pregnant words to her ambassador, but it was not to be taken up until Europe in alarm had vainly

tried to avert the threatened war. A congress was to be convened on Italian affairs, and 'Preliminary Disarmament' was the watchword of the hour. April 23 brought Austria's *ultimatum*. Piedmont must disarm or—fight. 'We have made some history,' said Cavour exultingly, when three days later he had handed in his answer to Vienna; and speedily came the promise of the 'fullest aid from France.' On April 30 the French vanguard arrived in Turin; the first battle was fought at Montebello on May 20; that of Magenta quickly followed, and on June 24 the third and last at Solferino. On July 11 the war was terminated by the Treaty of Villafranca, whereby 'Lombardy was ceded to France, and then transferred to Piedmont.' Concluded without Cavour, the news of it fell on him like a thunderbolt. It was a bitter moment both for his sovereign and himself when they met in the royal head-quarters at Pozzolengo. Victor Emmanuel had signed the peace with the strange reservation, 'as far as I am concerned,' and Cavour knew that no alternative had been left to him. But the minister's grief was terrible on thus finding himself suddenly arrested in mid-career to his goal. He declined all responsibility in the matter, and as soon as affairs were settled, sent in his resignation. The peace was unpopular, and no act could have done him better service with the people, for it at once identified him in their eyes with the national cause, as he was truly identified with it in feeling and in fact. The hearts of all Italy went with him into his brief seclusion among the De la Rives. Only a few months elapsed before he was recalled to Turin; a little while longer, and he returned to office and to the completion of his great designs.

If there are still some to whom the course he now pursued does not seem wholly blameless, its vast difficulties must be taken into the account. Sorely disappointed in his ally, Cavour was never embittered against him. Neither could he be insensible to the fact that Northern Italy, freed from foreign soldiers, owed that freedom to France; while, by her non-fulfilment of the stipulations of the Treaty of Villafranca, she had failed in the recognition of her debt. To break with the French Emperor, or to lose his sympathy at this epoch, would be ruin. The cession of Nice and Savoy, as a compensation to France, was inevita-

ble, even had no geographical features pointed that way; and Cavour was equally well aware of the value to be attached to its results. 'Now,' said he to the French plenipotentiaries, when the deed of annexation had been signed, 'Now you are our accomplices!' True patriot as he was, it is not to be supposed that he resigned those fair possessions without a pang; but their bitterest cost to himself was the hostility their cession raised against him, and the alienation of Garibaldi from his side. From his own point of view, Garibaldi had certainly a grievance. In his graphic language, the loss of Nice, his native city, had 'made him a stranger in his country'; he regarded the whole thing as nothing less than an act of treachery towards Sardinia and her King; and when he left Genoa, in May, 1860, to join the Sicilian insurrection, it was with the cry of 'Italy and Victor Emmanuel!' that he rallied the southern kingdoms to revolt. Nevertheless, Cavour was secretly wishing his adventure to succeed, at the same time that he trembled for his rashness, and could not openly avow the anxious interest that he felt. His reticence, however, was of little use. The Cabinet of Turin was assailed with remonstrances from nearly all the Courts of Europe. As far as possible, Cavour evaded all discussion of the matter. To ward off interference by the Northern Powers on the one hand, to keep the popular hero from ruining the popular cause on the other—in short, to let the struggle apparently shape out naturally the issues desired for Italy, was in reality his aim. But 'revolutionary Piedmont' had become a by-word. 'Sardinia alone,' said the Emperor of the French to the Neapolitan king, 'can check the revolution.' Thus appealed to, Cavour could not remain quiescent; but he contrived to steer clear of anything that would put a stumbling-block in the way of the cherished union that he foresaw. The situation was delicate and difficult almost to the last degree; but it was to become yet more so, if possible, when Garibaldi entered Naples as a conqueror, and, master of the Two Sicilies, proposed to march to Rome, and to proclaim the independence of Italy from the Capitol. In fact, the 'Liberator' seemed beside himself, and could no longer be held within bounds. He demanded Cavour's dismissal from the King, and promised to be answerable for everything.

The consequence of all this, as Cavour well knew, would infallibly be French intervention. Unless he would have all his projects overthrown, there was not a moment to lose in foiling Garibaldi. The troops which Rome had been preparing since the early part of the year, and the request of Umbria and the Marches for protection against the invaders, supplied him with a pretext which he did not fail to seize. On September 7th he summoned the Papal Government to disarm the corps whose existence was 'a continual menace to Italian tranquillity,' threatening warlike measures immediately in case of non-compliance. The Pope's refusal was decisive, and by a consummate stroke of policy Cavour compelled his now dangerous rival to be his coadjutor once more. Throwing an overwhelming force into the Ecclesiastical States, while the King of Naples was retiring before Garibaldi, in the space of a few days he ruined the Papal army. The Piedmontese pressed on to complete the conquest of Naples, and Garibaldi withdrew to Caprera, after arranging for the annexation of the Two Sicilies, by 'universal suffrage,' to Piedmont, whose sovereign, thanks to the foresight of Cavour, had been duly empowered by the Chamber to accept any unconditional allegiance that the neighboring provinces should offer. Pending these events, and the tumult and tension they involved, with Austria hovering on the Mincio, the question of Venice unsettled, Rome still unreached, and Garibaldi, from his retreat at Caprera, insulting the Government, and clamorous for a general arming, it was natural that the advantages of having a despotic ruler, at least for the time being, should be somewhat keenly desired, and Cavour received many a suggestion that he would do well to assume the Dictatorship. But this, as he justly perceived, was not the rôle for him, involving as it must, nothing short of disloyalty to the principles from which he had never swerved.

In the spring of the following year, 1861, the first National Parliament assembled at Turin, and proclaimed Victor Emmanuel 'King of Italy.' Everything was referred to the Senate; and, after a stormy scene in the Chamber with Garibaldi, on April 18, Cavour obtained the sanction of a majority, and the King, at a private meeting of the Minister and the 'Liberator' in his own palace, contrived to heal the breach

between them, though not to renew their friendship.

The dream of Cavour's youth was fulfilled: Italy a kingdom, and he its Premier! True, his goal was not quite attained till Rome became the seat of government, but the keystone of his work was for other hands to place. On June 6, after little more than a week's illness, he died of fever, no doubt induced by his late extraordinary efforts of body and of mind, and as certainly rendered fatal by the unenlightened method of Italian physicians, who literally bled the exhausted hero to death. Six years previously (during the struggle for the Rattazzi Law), he had procured from his confessor, Father Giacomo, the promise of the last sacraments, and it was to him that he turned with the final words: 'Frate, frate, Libera Chiesa in Libero Stato!' Surely they were the noblest eulogium that could be uttered on himself! Amid the tears of Italy he was laid to rest at Santena.

The more unparalleled a man is the more it seems that we strive to find his parallel. M. de Mazade draws a comparison between Cavour and Charles Fox. Cavour, he says, 'had the ardent temperament of the great Whig leader—the power of mind, the charm of manner, and the irony without bitterness. He had yet more than Charles Fox—the instinct and the natural genius of the man born to govern, and in his dreams of ambition he did not content himself with the part of chief of the Opposition;' &c., &c., a comment which in its last clause falls very far below a due appreciation of Cavour's utter indifference to all party aims, as such. On the other hand, the terms in which Cavour writes of the younger Pitt appear almost to describe himself: 'He was no friend of despotism nor a champion of intolerance. This vast and able mind loved power as a means, not as an end. . . . Devoid of prejudices, he was animated only by the love of his country and of glory.' Here again, we demur to the application of the closing words: glory, for its own sake, had certainly no place among the aspirations of Cavour. In the preface, as also in the concluding lines of his book, M. de Mazade contrasts him with Bismarck, and naturally enough in a Frenchman, though by no means unfairly, to the advantage of the Italian, whom he ranks, both in aim and conduct, far above the German. But,

calm and temperate as his narrative is—even colorless, as it has been styled—we must own that, equally with that of M. de la Rive, it forces on us the conviction that modern history offers no true counterpart of Camille de Cavour. To our mind, the portrait that most faithfully represents him is the ideal one of 'The Happy Warrior.' There is hardly a line in that beautiful poem of Wordsworth's that might not be applied to Cavour. In character as in genius, as a politician and as a man, he was simply and essentially great. Broad of vision, yet in action prompt; sensitive, yet just; though prudent, fearless; and though ardent, firm; truthful to the core; independent to a fault; generous, unprejudiced, patient, self-forgetting; a reformer, but no revolutionist; a strong champion, but never a partizan; enthusiastic, but with abounding common sense; ambitious for Italy alone;—his story, in its dramatic completeness, rings out from the annals of our age like a grand harmonious strain. No doubt M. de Mazade is right in attributing much of his influence to the attractive originality of his marvellously well-balanced nature. *Ennui* and rancor, with him were alike unknown. Nothing need ever be wearisome, he said. 'That man,' exclaimed Archbishop Darboy, 'was indeed of a rare sort! He had not the slightest sentiment of hatred in his heart.' Single in motive and in aim, he could neither resent an injury nor bear a grudge. It was declared that Marshal Haynau was the only object of his cordial dislike. 'He despised,' says his latest biographer, 'neither men nor things.' 'Many card-players,' he used to affirm, 'only lose because they have no regard for the small cards.' As a speaker he had difficulties to contend with: an unmusical voice, a slight cough (which, however, he could turn to account when he chose), and the necessity of learning to express himself in Italian. Nevertheless, Cavour, as might be expected, became one of the best debaters in the Chamber. His speeches, never written down, but delivered after a few hours' reflection, were telling, clear, remarkable for their comprehensive grasp of thought, and brilliant with repartee. In private life he was charming; among children, a child; tenderly affectionate, and tenderly beloved.

Such was the statesman who in twelve brief years did for his nation what it has elsewhere taken centuries to achieve—

raised her from a grave, and placed her on a throne ! It may be said, ' The time was ripe.' Undoubtedly ; but without its hero it would have been ripe in vain. And his work endures ; but even had it collapsed on his death, its memory would have lived as a monument to the power and integrity of Cavour.—*Fraser's Magazine*.

A FLORENTINE CARNIVAL SONG OF THE SIXTEENTH CENTURY.

COMPOSED BY ANTONIO ALAMANNI,

AND SUNG BY A COMPANY OF MASQUERS, HABITED AS SKELETONS, ON A CAR OF DEATH DESIGNED BY
PIERO DI COSIMO.

SORROW, tears, and penitence
Are our doom of pain for aye :
This dead concourse riding by
Hath no cry but Penitence !

E'en as you are, once were we :
You shall be as now we are :
We are dead men, as you see :
We shall see you dead men, where
Nought avails to take great care,
After sins, of penitence.

We too in the Carnival
Sang our love-songs through the town ;
Thus from sin to sin we all
Headlong, heedless, tumbled down :—
Now we cry, the world around,
Penitence ! oh, Penitence !

Senseless, blind, and stubborn fools !
Time steals all things as he rides :
Honors, glories, states, and schools,
Pass away, and nought abides ;
Till the tomb our carcase hides,
And compels this Penitence.

This sharp scythe you see us bear,
Brings the world at length to woe :
But from life to life we fare ;
And that life is joy or woe :
All heaven's bliss on him doth flow
Who on earth does penitence.

Living here, we all must die ;
Dying, every soul shall live :
For the King of kings on high
This fixed ordinance doth give :
Lo, you are all fugitive !
Penitence ! Cry Penitence !

Torment great and grievous dole
Hath the thankless heart mid you :
But the man of piteous soul
Find much honor in our crew :
Love for loving is the due
That prevents this penitence.

Sorrow, tears, and penitence
 Are our doom of pain for aye :
 This dead concourse riding by
 Hath no cry but Penitence !

—*Cornhill Magazine.*

THE PROPOSED SUBSTITUTES FOR RELIGION.

BY GOLDWIN SMITH.

THERE appears to be a connection between the proposed substitutes for religion and the special training of their several authors. Historians tender us the worship of Humanity, professors of physical science tender us Cosmic Emotion. Theism might almost retort the apologue of the spectre of the Brocken.

The only organised cultus without a God, at present before us, is that of Comte. This in all its parts—its high-priesthood, its hierarchy, its sacraments, its calendar, its hagiology, its literary canon, its ritualism, and, we may add, in its fundamentally intolerant and inquisitorial character—is an obvious reproduction of the Church of Rome, with Humanity in place of God, great men in place of the saints, the Founder of Comtism in place of the Founder of Christianity, and even a sort of substitute for the Virgin in the shape of womanhood typified by Clotilde de Vaux. There is only just the amount of difference which would be necessary to escape from servile imitation. We have ourselves witnessed a case of alternation between the two systems which testified to the closeness of their affinity. The Catholic Church has acted on the imagination of Comte at least as powerfully as Sparta acted on that of Plato. Nor is Comtism, any more than Plato's *Republic* and other Utopias, exempt from the infirmity of claiming finality for a flight of the individual imagination. It would shut up mankind for ever in a stereotyped organisation which is the vision of a particular thinker. In this respect it seems to us to be at a disadvantage compared with Christianity, which, as presented in the Gospels, does not pretend to organise mankind ecclesiastically or politically, but simply supplies a new type of character, and a new motive power, leaving government, ritual and organisation of every kind to determine themselves

from age to age. Comte's prohibition of inquiry into the composition of the stars, which his priesthood, had it been installed in power, would perhaps have converted into a compulsory article of faith, is only a specimen of his general tendency (the common tendency, as we have said, of all Utopias) to impose on human progress the limits of his own mind. Let his hierarchy become masters of the world, and the effect would probably be like that produced by the ascendancy of a hierarchy (enlightened no doubt for its time) in Egypt, a brief start forward, followed by consecrated immobility for ever.

Lareveillère Lepaux, the member of the French Directory, invented a new religion of Theophilanthropy, which seems in fact to have been an organised Rousseauism. He wished to impose it on France, but finding that, in spite of his passionate endeavors, he made but little progress, he sought the advice of Talleyrand. "I am not surprised," said Talleyrand, "at the difficulty you experience. It is no easy matter to introduce a new religion. But I will tell you what I recommend you to do. I recommend you to be crucified, and to rise again on the third day." We cannot say whether Lareveillère made any proselytes, but if he did their number cannot have been much smaller than the reputed number of the religious disciples of Comte. As a philosophy, Comtism has found its place, and exercised its share of influence among the philosophies of the time; but as a religious system it appears to make little way. It is the invention of a man, not the spontaneous expression of the beliefs and feelings of mankind. Any one with a tolerably lively imagination might produce a rival system with as little practical effect. Roman Catholicism was at all events a growth, not an invention.

Cosmic Emotion, though it does not

affect to be an organised system, is the somewhat sudden creation of individual minds, set at work apparently by the exigencies of a particular situation, and on that account suggestive *primâ facie* of misgivings similar to those suggested by the invention of Comte.

Now, is the worship of Humanity or Cosmic Emotion really a substitute for religion? That is the only question which we wish, in these few pages, to ask. We do not pretend here to inquire what is or what is not true in itself.

Religion teaches that we have our being in a Power whose character and purposes are indicated to us by our moral nature, in whom we are united, and by the union made sacred to each other; whose voice conscience, however generated, is; whose eye is always upon us, sees all our acts, and sees them as they are morally without reference to worldly success, or to the opinion of the world; to whom at death we return; and our relations to whom, together with his own nature, are an assurance that, according as we promote or fail to promote his design by self-improvement, and the improvement of our kind, it will be well or ill for us in the sum of things. This is a hypothesis evidently separable from belief in a revelation, and from any special theory respecting the next world, as well as from all dogma and ritual. It may be true or false in itself, capable of demonstration or incapable. We are concerned here solely with its practical efficiency, compared with that of the proposed substitutes. It is only necessary to remark, that there is nothing about the religious hypothesis as here stated, miraculous, supernatural, or mysterious, except so far as those epithets may be applied to anything beyond the range of bodily sense, say the influence of opinion or affection. A universe self-made, and without a God, is at least as great a mystery as a universe with a God; in fact the very attempt to conceive it in the mind produces a mortal vertigo which is a bad omen for the practical success of Cosmic Emotion.

For this religion are the service and worship of Humanity likely to be a real equivalent in any respect, as motive power, as restraint, or as comfort? Will the idea of life in God be adequately replaced by that of an interest in the condition and progress of Humanity, as they

may affect us and be influenced by our conduct, together with the hope of human gratitude and fear of human reprobation after death, which the Comtists endeavor to organise into a sort of counterpart of the Day of Judgment?

It will probably be at once conceded that the answer must be in the negative as regards the immediate future and the mass of mankind. The simple truths of religion are intelligible to all, and strike all minds with equal force, though they may not have the same influence with all moral natures. A child learns them perfectly at its mother's knee. Honest ignorance in the mine, on the sea, at the forge, striving to do its coarse and perilous duty, performing the lowliest functions of humanity, contributing in the humblest way to human progress, itself scarcely sunned by a ray of what more cultivated natures would deem happiness, takes in as fully as the sublimest philosopher the idea of a God who sees and cares for all, who keeps account of the work well done or the kind act, marks the secret fault, and will hereafter make up to duty for the hardness of its present lot. But a vivid interest—such an interest as will act both as a restraint and as a comfort—in the condition and future of humanity, can surely exist only in those who have a knowledge of history sufficient to enable them to embrace the unity of the past, and an imagination sufficiently cultivated to glow with anticipation of the future. For the bulk of mankind the humanity-worshipper's point of view seems unattainable, at least within any calculable time.

As to posthumous reputation, good or evil, it is, and always must be, the appanage of a few marked men. The plan of giving it substance by instituting separate burial-places for the virtuous and the wicked is perhaps not very seriously proposed. Any such plan involves the fallacy of a sharp division where there is no clear moral line, besides postulating not only an unattainable knowledge of men's actions, but a knowledge still more manifestly unattainable of their hearts. Yet we cannot help thinking that with the men of intellect, to whose teaching the world is listening, this hope of posthumous reputation, or, to put it more fairly, of living in the gratitude and affection of their kind by means of their scientific discoveries and literary works, exerts an influence of

which they are hardly conscious; it prevents them from fully feeling the void which the annihilation of the hope of future existence leaves in the hearts of ordinary men.

Besides, so far as we are aware, no attempt has yet been made to show us distinctly what "humanity" is, and wherein its "holiness" consists. If the theological hypothesis is true, and all men are united in God, humanity is a substantial reality; but otherwise we fail to see that it is anything more than a metaphysical abstraction converted into an actual entity by philosophers who are not generally kind to metaphysics. Even the unity of the species is far from settled; science still debates whether there is one race of men, or whether there are more than a hundred. Man acts on man, no doubt; but he also acts on other animals, and other animals on him. Wherein does the special unity or the special bond consist? Above all, what constitutes the "holiness?" Individual men are not holy; a large proportion of them are very much the reverse. Why is the aggregate holy? Let the unit be a "complex phenomenon," an "organism," or whatever name science may give it, what multiple of it will be a rational object of worship?

For our own part, we cannot conceive worship being offered by a sane worshipper to any but a conscious being, in other words, to a person. The fetish-worshipper himself probably invests his fetish with a vague personality, such as would render it capable of propitiation. But how can we invest with a collective personality the fleeting generations of mankind? Even the sum of mankind is never complete, much less are the units blended into a personal whole, or, as it has been called, a colossal man.

There is a gulf here, as it seems to us, which cannot be bridged, and can barely be thatched over by the retention of religious phraseology. In truth, the anxious use of that phraseology betrays weakness, since it shows that you cannot do without the theological associations which cling inseparably to religious terms.

You look forward to a closer union, a more complete brotherhood of man, an increased sacredness of the human relation. Some things point that way; some things point the other way. Brotherhood has hardly a definite meaning without a father;

sacredness can hardly be predicated without anything to consecrate. We can point to an eminent writer who tells you that he detests the idea of brotherly love altogether; that there are many of his kind whom, so far from loving, he hates, and that he would like to write his hatred with a lash upon their backs. Look again at the inhuman Prussianism which betrays itself in the New Creed of Strauss. Look at the oligarchy of enlightenment and enjoyment which Renan, in his *Moral Reform of France*, proposes to institute for the benefit of his own circle, with sublime indifference to the lot of the vulgar, who, he says, "must subsist on the glory and happiness of others." This does not look much like a nearer approach to a brotherhood of man than is made by the Gospel.

In an article on the "Ascent of Man" we referred to doctrines broached by science at the time of the Jamaica massacre. We neither denied nor had forgotten, but, on the contrary, most gratefully remembered, that among the foremost champions of humanity on that occasion stood some men of the highest eminence who are generally classed with the ultra-scientific school; but they were men in whose philosophy we are persuaded an essentially theological element still lingers, however anti-theological the language of some of them may be.*

We are speaking, of course, merely of the comparative moral efficiency of religion and of the proposed substitutes for it, apart from the influence exercised over individual conduct by the material needs and other non-theological forces of society.

For the immortality of the individual soul, with the influences of that belief, we are asked to accept the immortality of the race. But here, in addition to the difficulty of proving the union and intercommunion of all the members, we are met by the objection that unless we live in God, the race, in all probability, is not immortal. That our planet and all it contains will come to an end, appears to be the decided opinion of science. This "holy" being, our relation to which is to take the place of our relation to an eternal Father, by the adoration of which we are to be sustained and controlled, if it exists at all, is as ephem-

* We are not aware that in the writings of Mr. Darwin there is anything to prove or even to suggest that he is not a theist.

eral compared with eternity as a fly. We shall be told that we ought to be content with an immortality extending through tens of thousands, perhaps hundreds of thousands, of years. To the *argumentum ad verendum* there is no reply. But will this banish the thought of ultimate annihilation? Will it prevent a man, when he is called upon to make some great sacrifice for the race, from saying to himself, that, whether he makes the sacrifice or not, one day all will end in nothing?

Evidently these are points which must be made quite clear before you can, with any prospect of success, call upon men either to regard Humanity with the same feelings with which they have regarded God, or to give up their own interest or enjoyment for the future benefit of the race. The assurance derived from the fondness felt by parents for their offspring, and the self-denying efforts made for the good of children, will hardly carry us very far, even supposing it certain that parental love would remain unaffected by the general change. It is evidently a thing apart from the general love of Humanity. Nobody was ever more extravagantly fond of his children, or made greater efforts for them, than Alexander Borgia.

It has been attempted, however, with all the fervor of conviction, and with all the force of a powerful style, to make us see not only that we have this corporate immortality as members of the "colossal man," but that we may look forward to an actual though impersonal existence in the shape of the prolongation through all future time of the consequences of our lives. It might with equal truth be said that we have enjoyed an actual though impersonal existence through all time past in our antecedents. But neither in its consequences nor in its antecedents can anything be said to live except by a figure. The characters and actions of men surely will never be influenced by such a fanciful use of language as this! Our being is consciousness; with consciousness our being ends, though our physical forces may be conserved, and traces of our conduct—traces utterly undistinguishable—may remain. That with which we are not concerned cannot affect us either presently or by anticipation; and with that of which we shall never be conscious, we shall never feel that we are concerned. Perhaps if the authors of this new immor-

ality would tell us what they understand by non-existence, we might be led to value more highly by contrast the existence which they propose for a soul when it has ceased to think or feel, and for an organism when it has been scattered to the winds.

They would persuade us that their impersonal and unconscious immortality is a brighter hope than an eternity of personal and conscious existence, the very thought of which they say is torture. This assumes, what there seems to be no ground for assuming, that eternity is a boundless extension of time; and, in the same way, that infinity is an endless space. It is more natural to conceive of them as emancipation respectively from time and space, and from the conditions which time and space involve; and among the conditions of time may apparently be reckoned the palling of pleasure or of existence by mere temporal protraction. Even as we are—sensual pleasure palls; so does the merely intellectual: but can the same be said of the happiness of virtue and affection? It is urged too that by exchanging the theological immortality for one of physical and social consequences, we get rid of the burden of self, which otherwise we should drag for ever. But surely in this there is a confusion of self with selfishness. Selfishness is another name for vice. Self is merely consciousness. Without a self, how can there be self-sacrifice? How can the most unselfish emotion exist if there is nothing to be moved? "He that findeth his life, shall lose it; and he that loseth his life, shall find it," is not a doctrine of selfishness, but it implies a self. We have been rebuked in the words of Frederick to his grenadiers—"Do you want to live for ever?" The grenadiers might have answered, "Yes; and therefore we are ready to die." It is not when we think of the loss of anything to which a taint of selfishness can adhere—it is not even when we think of intellectual effort cut short for ever by death just as the intellect has ripened and equipped itself with the necessary knowledge—that the nothingness of this immortality of conserved forces is most keenly felt; it is when we think of the miserable end of affection. How much comfort would it afford any one bending over the deathbed of his wife to know that forces set free by her dissolu-

tion will continue to mingle impersonally and indistinguishably with forces set free by the general mortality? Affection at all events requires personality. One cannot love a group of consequences, even supposing that the filiation could be distinctly presented to the mind. Pressed by the hand of sorrow craving for comfort, this Dead Sea fruit crumbles into ashes, paint it with eloquence as you will.

Humanity, it seems to us, is a fundamentally Christian idea, connected with the Christian view of the relations of men to their common Father and of their spiritual union in the Church. In the same way the idea of the progress of Humanity seems to us to have been derived from the Christian belief in the coming of the Kingdom of God through the extension of the Church, and to that final triumph of good over evil foretold in the imagery of the Apocalypse. At least the founders of the Religion of Humanity will admit that the Christian Church is the matrix of theirs: so much their very nomenclature proves; and we would fain ask them to review the process of disengagement, and see whether the essence has not been left behind.

No doubt there are influences at work in modern civilisation which tend to the strengthening of the sentiment of humanity by making men more distinctly conscious of their position as members of a race. On the other hand, the unreflecting devotion of the tribesman, which held together primitive societies, dies. Man learns to reason and calculate; and when he is called upon to immolate himself to the common interest of the race he will consider what the common interest of the race, when he is dead and gone, will be to him, and whether he will ever be repaid for his sacrifice.

Of Cosmic Emotion it will perhaps be more fair to say that it is proposed as a substitute for religious emotion rather than as a substitute for religion, since nothing has been said about embodying it in a cult. It comes to us commended by glowing quotations from Mr. Swinburne and Walt Whitman, and we cannot help saying that, for common hearts, it stands in need of the commendation. The transfer of affection from an all-loving Father to an adamant universe is a process for which we may well seek all the aid that the witchery of poetry can supply. Un-

luckily, we are haunted by the consciousness that the poetry itself is blindly ground out by the same illimitable mill of evolution which grinds out virtue and affection. We are by no means sure that we understand what Cosmic Emotion is, even after reading an exposition of its nature by no ungifted hand. Its symbola, so to speak, are the feelings produced by the two objects of Kant's peculiar reverence, the stars of heaven and the moral faculty of man. But, after all, these are only like anything else, aggregations of molecules in a certain stage of evolution. To the unscientific eye they may be awful, because they are mysterious; but let science analyse them and their awfulness disappears. If the interaction of all parts of the material universe is complete, we fail to see why one object or one feeling is more cosmic than another. However, we will not dwell on that which, as we have already confessed, we do not feel sure that we rightly apprehend. What we do clearly see is that to have cosmic emotion, or cosmic anything, you must have a cosmos. You must be assured that the universe is a cosmos and not a chaos. And what assurance of this can materialism or any non-theological system give? Law is a theological term: it implies a lawgiver, or a governing intelligence of some kind. Science can tell us nothing but facts, single or accumulated as experience, which would not make a law though they had been observed through myriads of years. Law is a theological term, and cosmos is equally so, if it may not rather be said to be a Greek name for the aggregate of laws. For order implies intelligent selection and arrangement. Our idea of order would not be satisfied by a number of objects falling by mere chance into a particular figure however intricate and regular. All the arguments which have been used against design seem to tell with equal force against order. We have no other universe wherewith to compare this so as by the comparison to assure ourselves that this is not a chaos but a cosmos. Both on the earth and in the heavens we see much that is not order but disorder, not cosmos but acosmia. If we divine, nevertheless, that order reigns, and that there is design beneath the seemingly undesigned, and good beneath the appearance of evil, it is by virtue of something

not dreamed of in the philosophy of materialism.

Have we really come to this, that the world has no longer any good reason for believing in a God or a life beyond the grave? If so, it is difficult to deny that with regard to the great mass of mankind up to this time Schopenhauer and the Pessimists are right, and existence has been a cruel misadventure. The number of those who have suffered lifelong oppression, disease, or want, who have died deaths of torture or perished miserably by war, is limited though enormous; but probably there have been few lives in which the earthly good has not been outweighed by the evil. The future may bring increased means of happiness, though those who are gone will not be the better for them; but it will bring also increase of sensibility, and the consciousness of hopeless imperfection and miserable futility will probably become a distinct and growing cause of pain. It is doubtful even whether, after such a raising of Mokanna's veil, faith in everything would not expire and human effort cease. Still we must face the situation: there can be no use in self-delusion. In vain we shall seek to cheat our souls and to fill a void which cannot be filled by the manufacture of artificial religions and the affectation of a spiritual language to which, however persistently and fervently it may be used no realities correspond. If one of these cults could get itself established, in less than a generation it would become hollower than the hollowest of ecclesiasticisms. Probably not a few of the highest natures would withdraw themselves from the dreary round of self-mockery by suicide; and if a scientific priesthood attempted to close that door by sociological dogma or posthumous denunciation the result would show the difference between the practical efficacy of a religion with a God and that of a cult of "Humanity" or "Space."

Shadows and figments, as they appear to us to be in themselves, these attempts to provide a substitute for religion are of the highest importance, as showing that men of great powers of mind, who have thoroughly broken loose not only from Christianity but from natural religion, and in some cases placed themselves in violent antagonism to both, are still unable to divest themselves of the religious sentiment, or to appease its craving for satisfaction.

There being no God, they find it necessary, as Voltaire predicted it would be, to invent one; not for the purposes of police (they are far above such sordid Jesuitism), but as the solution of the otherwise hopeless enigma of our spiritual nature. Science takes cognisance of all phenomenon; and this apparently ineradicable tendency of the human mind is a phenomena like the rest. The thoroughgoing Materialist, of course, escapes all these philosophical exigencies; but he does it by denying Humanity as well as God, and reducing the difference between the organism of the human animal and that of any other animal to a mere question of complexity. Still, even in this quarter, there has appeared of late a disposition to make concessions on the subject of human volition hardly consistent with Materialism. Nothing can be more likely than that the impetus of great discoveries has carried the discoverers too far.

Perhaps with the promptings of the religious sentiment there is combined a sense of the immediate danger with which the failure of the religious sanction threatens social order and morality. As we have said already, the men of whom we specially speak are far above anything like social Jesuitism. We have not a doubt but they would regard with abhorrence any schemes of oligarchic illuminism for guarding the pleasures of the few by politic deception of the multitude. But they have probably begun to lay to heart the fact that the existing morality, though not dependent on any special theology, any special view of the relations between soul and body, or any special theory of future rewards and punishments, is largely dependent on a belief in the indefeasible authority of conscience, and in that without which conscience can have no indefeasible authority—the presence of a just and all-seeing God. It may be true that in primæval society these beliefs are found only in the most rudimentary form, and, as social sanctions, are very inferior in force to mere gregarious instincts or the pressure of tribal need. But man emerges from the primæval state, and when he does, he demands a reason for his submission to moral law. That the leaders of the anti-theological movement in the present day are immoral nobody but the most besotted fanatic would insinuate; no candid antagonist would deny that some of them are

in every respect the very best of men. The fearless love of truth is usually accompanied by other high qualities, and nothing could be more unlikely than that natures disposed to virtue, trained under good influences, peculiarly sensitive to opinion and guarded by intellectual tastes, would lapse into vice as soon as the traditional sanction was removed. But what is to prevent the withdrawal of the traditional sanction from producing its natural effect upon the morality of the mass of mankind? The commercial swindler or the political sharper, when the divine authority of conscience is gone, will feel that he has only the opinion of society to reckon with, and he knows how to reckon with the opinion of society. If Macbeth is ready, provided he can succeed in this world, to "jump the life to come," much more ready will villainy be to "jump" the bad consequences of its actions to humanity when its own conscious existence shall have closed. Rate the practical effect of religious beliefs as low and that of social influences as high as you may, there can surely be no doubt that morality has received some support from the authority of an inward monitor regarded as the voice of God. The worst of men would have wished to die the death of the righteous; he would have been glad, if he could, when death approached, to cancel his crimes; and the conviction, or misgiving, which this implied, could not fail to have some influence upon the generality of mankind, though no doubt the influence was weakened rather than strengthened by the extravagant and incredible form in which the doctrine of future retribution was presented by the dominant theology.

The denial of the existence of God and of a future state, in a word, is the dethronement of conscience; and society will pass, to say the least, through a dangerous interval before social science can fill the vacant throne. Avowed scepticism is likely to be disinterested and therefore to be moral; it is among the unavowed sceptics and conformists to political religions that the consequences of the change may be expected to appear. But more than this, the doctrines of Natural Selection and the Survival of the Fittest are beginning to generate a morality of their own, with the inevitable corollary that the proof of superior fitness is to survive—to survive either by force or cunning, like the other

animals which by dint of force or cunning have come out victorious from the universal war and asserted for themselves a place in nature. The "irrepressible struggle for empire" is formally put forward by public writers of the highest class as the basis and the rule of the conduct of this country towards other nations; and we may be sure that there is not an entire absence of connection between the private code of a school and its international conceptions. The feeling that success covers everything seems to be gaining ground, and to be overcoming, not merely the old conventional rules of honor, but moral principle itself. Both in public and private there are symptoms of an approaching failure of the motive power which has hitherto sustained men both in self-sacrificing effort and in courageous protest against wrong, though as yet we are only at the threshold of the great change, and established sentiment long survives, in the masses, that which originally gave it birth. Renan says, probably with truth, that had the Second Empire remained at peace, it might have gone on forever; and in the history of this country the connection between political effort and religion has been so close that its dissolution, to say the least, can hardly fail to produce a critical change in the character of the nation. The time may come, when, as philosophers triumphantly predict, men, under the ascendancy of science, will act for the common good, with the same mechanical certainty as bees; though the common good of the human hive would perhaps not be easy to define. But in the meantime mankind, or some portions of it, may be in danger of an anarchy of self-interest, compressed for the purpose of political order, by a despotism of force.

That science and criticism, acting—thanks to the liberty of opinion won by political effort—with a freedom never known before, have delivered us from a mass of dark and degrading superstitions, we own with heartfelt thankfulness to the deliverers, and in the firm conviction that the removal of false beliefs, and of the authorities or institutions founded on them, cannot prove in the end anything but a blessing to mankind. But at the same time the foundations of general morality have inevitably been shaken, and a crisis has been brought on the gravity of which nobody can fail to see, and nobody

but a fanatic of Materialism can see without the most serious misgiving.

There has been nothing in the history of man like the present situation. The decadence of the ancient mythologies is very far from affording a parallel. The connection of those mythologies with morality was comparatively slight. Dull and half-animal minds would hardly be conscious of the change which was partly veiled from them by the continuance of ritual and state creeds; while in the minds of Plato and Marcus Aurelius it made place for the development of a moral religion. The Reformation was a tremendous earthquake; it shook down the fabric

of mediæval religion, and as a consequence of the disturbance in the religious sphere filled the world with revolutions and wars. But it left the authority of the Bible unshaken, and men might feel that the destructive process had its limit, and that adamant was still beneath their feet. But a world which is intellectual and keenly alive to the significance of these questions, reading all that is written about them with almost passionate avidity, finds itself brought to a crisis the character of which any one may realize by distinctly presenting to himself the idea of existence without a God.—*Macmillan's Magazine.*

A RIDE FOR LIFE.

It was on the last day of December 1857 that the regiment of Sikh irregular cavalry with which I served during the Mutiny in India was marching southwards from Meerut towards Futteghur, in order to effect a junction with a strong force which was advancing in a northwesterly direction from Cawnpore. Our force had reached within ten miles or so of a small town named Bewah, where the old Grand Trunk Road branches off towards Futteghur. The force under Lord Clyde, with which we were seeking to effect a junction, was known to be within some thirty-five or forty miles of us; but owing to the disturbed state of the country, it had been hitherto impossible to ascertain with any accuracy its precise position. Between eleven and twelve o'clock that night I was awakened from a sound sleep in my tent by the adjutant of my corps. He told me that I must get up at once, as news had come that a strong party of rebels had advanced to Bewah, and was now probably between our column and the one with which we were wishing to effect a junction; that there was good reason to believe that the rebels had surprised and cut off a picket of our own regiment, which had been sent out under an officer that morning; and that consequently an order had just been issued that another strong patrol or reconnoitring party was to start off at once, in order to ascertain the truth of these reports, if possible—to find out if any body of the enemy occupied the road in front of us—and to pick up generally what information it could.

As I was the next officer for duty, it devolved upon me to take command of the party, which was to consist of about four-and-twenty men. Hastily ordering one of my horses to be saddled, I proceeded to make myself ready for a start. The supposed and also the possible whereabouts of the enemy were pointed out to me on a map of the district, and my instructions were clear and precise. I was to steal along the road to the front as quietly and cautiously as possible; to pick up any men of our own patrol whom I might fall in with; to avoid any engagement with the enemy, and to send or bring back exact information of his strength and position as soon as possible. After carefully loading a double-barrelled pistol which I carried, I proceeded to inspect the men and horses of my party, who were already drawn up in readiness a few yards from my tent. Finding them all satisfactorily equipped, I put myself at their head and we moved silently off. It was a serene, bright, and very cold night, and the moon was shining forth with that intensely clear brilliancy only seen in the tropics, as we passed down the main street of the camp, where the troops were sleeping quietly in their tents ranged on each side, and struck into the road along which our intended route lay. After proceeding for about a mile and a half, we approached the last outposts of the camp, and were sharply challenged by the sentries in succession as we passed. After a few minutes' conversation *en passant* with the infantry officer in command of the picket, I

passed on. As I did so, I felt that I might very probably require to have all my wits about me in order to execute the task I was instructed to carry out. After taking all necessary precautions to avoid surprise, I made my men follow each other in single file on each side of the road, where the ground was soft, and where, therefore, the sounds of their horses' footfall was not audible, except at a few yards' distance. Advancing thus cautiously along, I proceeded without seeing or hearing anything to indicate the presence of a rebel force for eight or nine miles. *En route* I passed through a couple of miserable villages, which appeared to be deserted, as there was not a soul to be found in them. Suddenly the native officer of the party which I had thrown out as scouts ahead, rode up to say that two men lay dead on the way about half a mile ahead, and that he had identified them as belonging to our patrol, which had been sent out in the morning, and of which nothing had since been heard. Giving orders to my party to follow on quietly, I galloped forward with the man who had brought the news, towards the spot where the bodies were. Sure enough, there they lay, evidently just as they had fallen. One of them, a fine powerfully built Sikh, was stretched full length across the road. He had been partially stripped, and lay in a pool of his own blood, his body covered with gaping sword-wounds, while his sabre, of which he had evidently retained his grip almost to the last, was close to his clenched hand, showing that he had fought desperately with his foes to the end. The other man lay under a tree a few yards off, on the side of the road, and had evidently been killed while trying to escape towards our camp; for he had been shot on the back, and had only one sabre-cut visible on him—viz., right across his throat. All this we could discover by the bright moonlight. One of my men had meanwhile lit a native oil torch (though there was, indeed, but little need of it), and as its glare threw a fitful light over the scene, I laid my hand upon one of the dead men, as it was necessary for me to guess how long it was since they had been killed.

Both men were quite cold, and had therefore been dead some hours. It was now but too evident that our patrol sent out in the morning had been attacked; but what had been the fate of the re-

mainder of the party it was impossible to say. Directing my men to place the dead bodies under a tree by the side of the road, I waited till the main body of the patrol came up. In a few minutes they made their appearance, and on reaching the spot where we were, they busied themselves in scrutinising, by the help of the bright moonlight, the upturned faces of the two dead men. One trooper, after a short scrutiny, dismounted, kneeling down close to one of the corpses, made a hurried exclamation, and broke out into frantic protestations of grief upon recognising his own brother as one of the slain. I was obliged, in order to silence him, to remind him that it was neither the time nor the place to indulge his grief, but that all he could do was to avenge his death, if he had the chance. He became silent at once, and placing his hand upon his sabre, swore solemnly that if we met any of the rebels, they should taste his vengeance—a sentiment warmly re-echoed by the troopers around. Mounting my horse, we again went forward in the same cautious manner as before. For about two miles we proceeded quietly enough, when suddenly the same native officer whom I had before sent on ahead, came galloping back with the news that about half a mile in front of us two more men of our patrol that had been sent out in the morning had been found badly wounded, but still sensible. I again galloped on ahead to the spot where the men were. They were sitting up, supported by the trunk of a tree, one of them so badly wounded as to be almost unconscious. The other man, though weak from loss of blood, was able to speak, and from him I endeavored to get a coherent account of what had occurred. At last, by dint of much cross-questioning and examination, I managed to extract the following facts: M—, the officer who had been sent out in command of the patrol in the morning, had got as far as Bewah without molestation, and had there learnt that the British force under Lord Clyde, which was advancing to meet us from Futtehghur, was still about twenty miles ahead. Being well mounted himself, he had picked out a couple of men to attend him, with the intention, if possible, of reaching the British camp, and so opening up a communication with our column. Before leaving his men in Bewah, he had given strict orders that they

were to keep a sharp look-out for themselves, and to keep men patrolling up two or three cross roads that led out of the village. Regarding him and his escort, nothing more had been heard; but as the day wore on, and no sign of any rebels appeared, our Sikh troopers, "mere Asiatics," slackened in their vigilance, the patrols returned, the men dismounted—some of them even unsaddled their horses—and repairing to the *caravansera* of the town, prepared to cook their evening meal. Suddenly, just as it was growing dusk, about five five or six o'clock, they were surprised by a band of fugitive rebels from a place called Etawah, who had been that day defeated by another small British force which had been operating in the neighborhood. These rebels, finding a detachment of Sikh troopers in the village, who were evidently taken by surprise, immediately set upon any of them whom they came across. Some of our men hid themselves in the village, and others, jumping on their horses, had, I was assured, made good their escape. Others, like those whom we found on the road *en route*, had been pursued for several miles, and had been killed and wounded in their flight. As to whether any of the rebels still occupied Bewah, the man could give me no information at all.

Finding himself surrounded by the enemy on all sides, he had jumped on his horse, barebacked, and fled for his life, and was hotly pursued, overtaken, and left for dead in the road. This was all that could be elicited from him. Telling a man 'of my party to remain behind with him and his comrade (who was now almost past praying for), and to do the best for him that he could under the circumstances, I set myself for a moment to think. I was somewhat in a dilemma. Did the rebels occupy Bewah or not; and if so, what was the strength and composition of their force? It was most important for me to ascertain this, as it was one of the main points which I had been instructed to find out. Again, what had become of M—— and his escort? Had they fallen into the hands of the rebels, or had they made good their way to Lord Clyde's camp? The difficulty was how to ascertain these points without being seen and attacked. After a few moments' consideration, I resolved to go forward with four picked troopers as near as I could to the

town, and trust to the chapter of accidents to find out something. I therefore directed the main body of my party to conceal themselves under some trees about half a mile from the town at the side of the road, while I and my four men started off on our mission. Nearer and nearer we approached the little town, expecting every moment to be challenged. At length I halted, and listened anxiously for any of the usual sounds that might betoken the presence of troops in the place. No, not a sound. We therefore advanced confidently on into the town, or rather village, which we found deserted and empty. Indeed the only noise that greeted our ears was the re-echo of our horses' hoofs as we marched through the street. Not an inhabitant to be seen. So far, so good; the enemy was certainly not there. At length, as I turned a corner in the street, a man started out from under a house-door where he had been crouching, and ran off in front of us, finally turning down a side street. I shouted to him in Hindustani to stop, but he took no heed; and as I urged my horse in pursuit, he disappeared through a gate. Hastily following him I found myself in a courtyard overlooked by the windows of half-a-dozen houses. Through the chinks of the door of one of these dwellings lights could plainly be discerned. When fairly in the yard, I could not help glancing anxiously around, and feeling how easily I and my four men might be shot down from the upper windows, in the event of there being any of the enemy within. I was, however, determined, if possible, to gain admittance. I therefore dismounted, and beating loudly at the door, demanded to be let in. My men meanwhile had cocked their carbines and were ready for any emergency that might arise. There was no answer at first to my summons, but I could hear through the wooden door a hurried consultation in whispers going on inside, and at length a voice tremulous with fear demanded who we were and what was our business. As soon as I said that I was an English officer, the door was opened at once, and I found three men sitting over the embers of a wood-fire. I demanded of them who they were, and which of them was the man whom I had seen run into the house. Upon this a respectable-looking native came forward, and assured me he was an

employé in the intelligence department of the British force under Lord Clyde, and that he had been sent to see if he could gain any news of the whereabouts of the force to which I belonged. In proof of his assertions he produced several official documents, and implored my protection, adding that his reason for running away was that he mistook me and my party for some of the rebel horsemen, who, he said, had sacked the place on their way through a few hours previously. His fears for his personal safety were not altogether without foundation; for on glancing behind me I saw that two of my Sikh troopers who had followed me into the house, were standing behind me with drawn sabres and eyeing him with great suspicion, and evidently prepared to cut him down at the least sign from me. In truth they were apparently somewhat disappointed at the turn affairs had taken, and at there being no one to kill in expiation of the blood of their own comrades. One of them, indeed, went so far as to remind me that the documents which the man produced might be forged, with various other suggestions of a similar kind. Ordering him to sheathe his sabre, and to hold his tongue, I proceeded to question this native; and I found out from him a good deal that I wanted to know. None of the rebel troops were left in the village, as they had passed through in hot haste in their flight from Etawah, thinking that they were pursued by the cavalry of the British force which had defeated them. (This, however, was not the case.) But of M—— and his escort he had heard nothing, nor did he know of the present whereabouts of the rebels troops. Upon hearing this, I sent back one of my troopers for the rest of my men whom I had left behind; and on their arrival I placed them in the *caravansera* just outside the town, to which was attached a small courtyard with high walls, and with a gate at the back, by which they could beat a retreat back towards our camp in the event of their being hard pressed; and I cautioned the native officer to keep a sharp look-out and to patrol the roads leading to his post. Meanwhile I determined myself to press on in company with two picked men to ascertain, if possible, the precise whereabouts of the enemy's camp, and also, if possible, to find out what had become of M——, about whom I was not

at all easy in my mind. I was not, however, without hope that his good luck and his readiness of resource would carry him safely through his daring and perilous ride.

It was now drawing near to four A.M., and the moon, that had previously been so bright, had for some time past been obscured with clouds, so that it was no longer easy to distinguish objects at any distance off. As in a couple of hours or so it would be broad daylight, it was necessary for me to make the most of the darkness that remained, which was, of course, favorable to our movements. At night I might easily be taken, especially with my escort, for a native horseman; whereas, as soon as it was light, I should have no chance for an instant of being taken for anything else but what I was. Accordingly, I and my escort left the *caravansera*, and, riding forth, we again struck along the Grand Trunk Road in the direction I wished to explore. Sending one of my men ahead, with instructions to keep about 300 yards in front, and, in the event of his being stopped, to have a plausible story ready, and to endeavor to pass himself off as a rebel trooper, we proceeded at a brisk trot. We went on in this fashion for about four miles or so without seeing or hearing anything. As I knew from my map that we must shortly come upon a good-sized village, we now slackened our pace, and, on getting within 300 or 400 yards of it, I halted under a group of trees at the side of the road, where we were well concealed from observation, and ordered one of my men to enter the village and see what information he could pick up. Meanwhile I and the other trooper who was with me waited where we were. In about twenty minutes or so the man returned, bringing with him a respectable-looking Brahmin whom he had found in the village, and whose house had on the previous evening been sacked by the rebels, and who was therefore naturally anxious to be revenged upon them to the utmost of his power. He informed me that the rebel force of which I was in search was encamped about a mile and a half to the right of the road, on the further side of a thick grove of trees, which concealed them from observation, and that they would stay there at least till noon of the coming day. Furthermore, he volunteered to act as my guide, and to point out to me their exact position, on condi-

tion that I would go there while it was yet dark; for if we stole up to them in the morning, we should be almost to a certainty discovered; and, though I might escape by flight, he would assuredly pay the forfeit with his life. As I was fully resolved not to return without precise information, if it could be got, I decided, hazardous as it seemed, to at once accept his offer. I hoped, while it was yet dark, to be able to get close to the enemy's camp, and, having taken up a position where I could see and not be seen, be able to take stock of their strength and numbers as soon as it was light; and when I had learnt all that I wanted to know, to steal away unperceived and carry back the information to my headquarters, which I had left during the night. At any rate, thought I, if the worst comes to the worst, and we are detected, we can ride for our lives. Looking back at my resolve through the vista of years, it seems now, perhaps, that it was a foolhardy undertaking; but I was only twenty at the time, and at that age the spirit of adventure and daring is strong. Looking towards the east, I fancied that I could already detect a faint reddish tinge upon the edge of the horizon, which betokened the coming day. There was consequently no time to be lost. Making a slight detour in order to skirt the village, and as much as possible to avoid observation, we proceeded across the plain, which was here and there dotted with small clumps of trees. *En route* I carried on a whispered conversation with my guide, with the object of finding out as much as possible about the rebel force. He said that in his opinion it consisted of about 600 infantry, 200 cavalry, and 12 guns, with some artillerymen. He was positive as to the latter point, for he declared that he had counted the guns as they had passed. We had not gone far before I distinctly heard the busy hum both of men and animals that always goes up from a camp in India; and, looking in the direction whence the noise came, I could see the glare of the camp-fires reflected with a murky light against the sky. Cautiously we walked our horses along, the Brahmin on foot close beside me. All our senses were on the *qui vive*, and I was careful to mark and notice, as far as possible, the bearings of the country and the direction in which we were going,—a precaution on which I had afterwards good

reason to congratulate myself. Arrived within 300 yards or so of the camp, we halted under a thick clump of mango-trees to reconnoitre farther. My guide said he must go now and hurry back, while there was yet time, to the village before it was daybreak.

"Yonder, sahib," said he, "is the camp, and you will have a good view of it as soon as it is light. A few yards to your right is a cart-track, which will lead you straight back to the village whence we have come. But," added he, "you are only three, and if they should see you and catch you, you may wash your hands of your life. May God preserve you."

The honest fellow would take no reward, though I pressed money upon him; and as I watched his retreating figure through the gloom, I tried to realise my position. Here was I, with only two of my men, within three or four hundred yards of nearly a thousand bloodthirsty rebels. I did not even know where their sentries were, and they might be within a stone's-throw of us for all that we could see. Indeed I was surprised that we had not been challenged long ago. At any rate, for the present, the only thing to be done was to remain where we were till the dawn of day, inasmuch as my present post was admirably suited to my purpose, which was to see and not be seen. It was a clump of low, leafy trees, in the middle of a high *dhal* field, on slightly higher ground than the camp, and overlooking it. Seated on my horse, as the day gradually broke, I could easily from time to time distinguish from this point of observation groups of rebel soldiers clustered around the numerous camp-fires, whose lurid and fitful glare every now and then brought out in strong relief all surrounding objects. There were the long lines of picketed horses, and the camels sitting down in readiness to be laden, and making the night air resound with their hideous bellowings. There were, moreover, many little signs and tokens with which my campaigning had already familiarised me, and which plainly told me that the rebels contemplated a march as soon as it was day.

Once more did I cautiously examine the caps of my revolver, and also those of a heavy double-barrelled pistol which I carried with me; and having done this, I anxiously awaited the dawn of day, which for the last half-hour had been faintly

flushing the eastern horizon. The minutes, however, seemed to drag on like hours, and, like Mazeppa,

"Methought that mist of morning gray,
Would never dapple into day."

Day, however came at last, and as gradually it grew lighter and lighter, the critical nature of our position came home to me with startling clearness; a sort of dare-devil feeling, however, took possession of me, and made me resolve at all hazards to endeavor to find out that which I wanted to know. As soon as it was light enough to see anything, I drew out my field-glass from its case, and advanced to the edge of the clump of trees under whose shelter we were hid from view, and my eye swept the camp from right to left. At first, owing to the uncertain light, I could not perceive any guns, but at length I managed to see where they were. I could, however, only make out four, and I had strong reasons, from what I had heard, for believing that there were more: judging from the position of those which I could see, I thought that the rest must be hidden by a row of tents at the further end of the camp. This was provoking, for it was about the strength of the rebels in artillery that I had special instructions to gain accurate information. It was, however, high time to be off, as it was impossible that we could remain much longer where we were undetected. For the past quarter of an hour, moreover, my two troopers, though as brave and reckless fellows as any man could wish to have with him, had been growing uneasy, and repeatedly urged me if I had any respect for my own life or theirs to be off while we could. "All right," said I; "I will just go forward to the edge of the field to find out if I can see any guns behind that row of tents, and then we will be off." Saying this, I advanced cautiously, bending my head low down on my horse's neck, and hidden by the tall herbage and a row of bushes, to the edge of the field where we were. I was right in my supposition. I could see now behind the row of tents, and there were the guns all packed in a row—twelve in number. This accorded exactly with the information that I had received, and was all that I wanted to know. The only thing that remained to be done was to get away unperceived as quickly as possible. I had just put my field-glass in my holster and was preparing to walk my

horse cautiously back to the clump of trees, in order to make a start with my men from there. At this moment my horse, seeing and hearing many of his *confrères* in the camp, suddenly pricked his ears, and gave a long and loud neigh, as a friendly intimation of his presence. He was instantly answered by half-a-dozen equine throats in the rebel camp. Aroused by the noise, a black-bearded native, who had evidently been sleeping rolled up in his blankets under the shelter of the bushes close to me, started up about twenty yards off, and gazed at me for a moment in blank astonishment. Instinctively I drew my pistol from my waist-belt, in which I wore it, and levelled it at him. Recollecting, however, our critical position, I hesitated to fire, as I foresaw that the report, close as we were to the rebel camp, would inevitably betray us to the enemy. I tried, therefore, to terrify him into submission. Accordingly I called out to him in a low voice in Hindustani to come to me at once or I would shoot him. Instead of obeying, the man, evidently a rebel sepoy, took advantage of my momentary hesitation, and recovering from his first astonishment, turned round and fled like a hare in the direction of the camp, shouting with all his might and main as he did so. Our position was too critical to try and stop him, and I saw at once that it was high time to make good our escape while we could. My two men, whom I had left concealed under the clump of trees, had grasped the situation at once when they saw the man running, and rode up to me, exclaiming, "We must ride for our lives, sahib, for that man will bring the whole camp upon us." "Yes," said I, hastily, "we will ride for the village; and if hard pressed, we will separate, and make the best of our way to the main body of the picket." So saying, we put spurs to our horses and rode rapidly for the village whence we had come. We had not gone more than eighty yards or so, when three rebel horsemen dashed out from a clump of trees upon our left front, and urging their horses to their utmost speed, rode down upon us with the evident intention of cutting off our retreat. Here is a pretty mess, thought I, as I drew my sword hastily from my scabbard. I was in front, my two men were close behind. On came our foes at full speed, and as the foremost horseman neared me

I thought at first of engaging him with my sword. Just as he came within three or four yards of me, the thought flashed across me that I could not afford to let him detain me, as time was everything to us, and that I might perhaps be able to make short work of him with my pistol. Quick as thought I dropped my sword, letting it hang by the knot from my wrist, and snatching out my pistol from my holster, I levelled it full at my assailant, a big black-bearded Mohammedan, and fired as I passed him at about two yards' distance. The ball hit him fair in the side, and for a second he reeled in his saddle, then dropping his uplifted sword-arm, he tumbled headlong forward to the ground, and his riderless horse galloped past just behind me. A thrill of exultation bounded through me as I saw him fall. Meanwhile one of my troopers had engaged another of our assailants. The rebel was a brave fellow enough, but he was no match for the sinewy Sikh behind me, who, after a few rapid exchanges of blows and parries, managed to get inside his guard, and gave him such a slash across the face with his sharp sabre, that he fell, blinded with blood, from his saddle. The third of our assailants, who had cautiously ridden some yards in rear, seeing his two companions *hors de combat*, took himself off to the camp, and we were left free for a few moments to continue our way unmolested.

All this, though it takes some time to relate, happened in a few moments or so. I knew it would not be long ere we should be hotly pursued; for as we rattled our horses over the wide plain I could hear a tremendous uproar in the rebel camp, which was by this time thoroughly alarmed. Casting a hurried look behind me, I could see that my worst anticipations were realised. Already a dozen or two of the rebels had leaped upon their horses, and, sabre in hand, with wild shouts and gestures, were urging them on at their utmost speed as they strove to gain upon us. A ride for dear life, thought I, as I caught sight of them streaming after us. Faster and faster yet I led the way, over rough ground and smooth, looking well to the ground in front (as a fall or a stumble of one of our horses might have proved fatal to us), and my two men kept close beside me. Our horses, however, had been out for hours, while those of our

pursuers were quite fresh, and we had not gone above a mile in this fashion when I began to fancy that our pursuers were gaining upon us. Before another half-mile had been passed, this idea of mine ripened into a certainty. Three or four of our pursuers, at any rate, were gaining rapidly upon us, and were two or three hundred yards in advance of the rest. If only they succeeded in stopping us, in order to fight with them, I saw that the whole pack would be upon us, and we should all be cut to pieces to a certainty. They also could afford, owing to their numbers, not to spare their horses, while, if our horses were once pumped, nothing could save us. Nearer and nearer they gained upon us, and their shouts of exultation and hatred were borne to my ears as they triumphantly fancied themselves sure of their prey. "We must separate," said I, quickly. "Ride off to the right, and I will go straight on," as I thought that by thus separating we might perhaps divert our pursuers, and one or other of us would have a chance of getting off. They immediately turned off to the right, though still heading for the village. This *ruse* was fortunate enough for my men, but it did not avail much for me. Casting another glance behind me, I saw, to my dismay, that our enemies did not appear to trouble themselves at all about my companions, but all four of them continued to ride, without swerving, after me; for it was, as I might have anticipated, the English officer whom they had marked for their prey, and whom they were thirsting to kill. Closer and closer they creep up to me; but I now urge my horse on, and manage to forge a little ahead. At this rate, thought I, they will soon pump their horses, if I can only hold on. But they are riding at a headlong pace, and I am forced to let out my horse also to his utmost speed in order to keep ahead of them. Already the foremost of the four is less than a hundred yards behind me, the other three close behind him, while there are a dozen more a short distance behind them. Even now, though twenty long years have passed since that day, it makes my blood jump to think of it. For a moment my heart dies within me, as I feel that the game is up; and I set my teeth and determine to die hard—to sell my life as dearly as I can, and fight it out to the last.

In the excitement of the ride I naturally had not looked far before me; but now I suddenly saw, just thirty or forty yards ahead of me, the dike full of water, which we had passed over in the early morning on our way to reconnoitre the camp. A thrill of hope and joy passed through me. It was a very fair jump, but nothing out of the way for a good horse; and I knew that mine, who was a good fencer, would clear it, and that there was a very good chance that the horses of my pursuers would not, as natives seldom practise their horses at jumping. They seemed hardly more than fifty or sixty yards off; and had it not been for the hope of placing the dike between myself and them, I felt that in another few moments, if they got much nearer, I should have been forced to turn at bay and fight it out to the last. Four to one, however, was hopeless odds, and with a ray of hope I rode straight at the dike. Even then, as I neared it, the thought flashed with a terrible misgiving through my brain that my horse might perhaps refuse it, and that in that case my pursuers would be upon me in a moment. Deadly as is the peril in which I am, I have yet the coolness and presence of mind to steady my horse somewhat as he comes up to the leap, and for a moment to slacken his speed. My gallant horse, a big powerful Australian gelding, sets his ears as he sees the leap in front of him; and when, at the critical moment, I dig my spurs into him with all the energy of desperation, he answers to the call, takes off well, and lands clearly, despite a somewhat rotten bank on the other side. (Assuredly at that moment I felt but little tempted to agree with the Psalmist that a horse was a vain thing for a man to trust to.) My horse had scarcely regained his stride when the four foremost of my foes, who had pressed me so hard, were on the brink of the dike.

Scarcely daring to hope that I may escape, I look anxiously round to see if they too get over. Two out of the four are slightly in advance, and they ride straight at the dike. To my intense delight their horses both refuse, and will have nothing to say to the jump; while the other two do not attempt it, but ride along the bank in order to find an easier place to cross. As I widen every second the distance between me and my pursuers, and my spir-

its thrill with exultation at my renewed prospect of escape, I am unable to restrain a shout of defiance at my baffled foes, which is immediately answered by an angry carbine shot from one of them, that, of course, does me no harm.

God grant that I may have a few moments more, and I shall be comparatively safe. Again I head straight for the village, which in the headlong race I had ridden a little wide of, and which was now but a short half-mile distant. Once I am safe through the village, I ought to fall in with some of my picket, to whom I had given orders that as soon as it was day-break they should patrol the road in that direction. Once more do I look back. Full twenty of my foes are now on the further brink, but, as far as I can make out, not one of them is over as yet. Another two hundred yards are passed when I see that half-a-dozen of them have at length got over, and are following me up as before with frantic haste, and doing their best to make up the ground they have lost. On they come, but I have got such a start that they do not gain on me much before I reach the village, and am lost for the time to their view.

As I rattle down the main street of the village, which was surrounded by a high wall, a few of the villagers, just roused from their slumbers, come out to the doors of their houses and gaze curiously at me as I pass. As I near the old arched gate at the further end, I hear a shout behind me, and on looking round, I see my two men, from whom I had parted a few minutes previously, coming up a by-street. They had taken advantage of our pursuers having gone off in pursuit of me alone, to make good their flight to the village, and thinking themselves comparatively secure, were taking a pull at their horses. They were overjoyed to see me, as they had given me up for lost. There was, however, as I told them, no time to talk. Our horses were all of them pretty well pumped, and I knew well enough that our pursuers were hard upon our track, and that the villagers would be sure to point out to them the route we had taken.

As we pass under the arched gateway, I see that there are an old pair of folding gates, evidently but seldom used, belonging to it. A happy thought strikes me, that if we could manage to shut the gates,

and fasten them somehow or other, we might yet delay our pursuers a few minutes, and gain a little breathing-time for our horses. No sooner thought of than we attempt to put it into execution. I ordered one of my troopers to dismount, and while I held his panting horse, he attempted to swing the old gates (which were made of massive bars of wood with intervals of two or three inches apart) upon their hinges. One of them yielded readily enough to his efforts, but the other resisted all his strength. It was evident that the gates had not been shut for a long time. In vain did he pull and push, it would not budge an inch. There were none of the villagers standing by to help, and seeing that he could not manage it alone, I bade the other man dismount in order to help him. At last by their joint efforts they succeeded in moving the stubborn gate, and little by little were getting it to close. Every moment did I expect to hear the horses of our pursuers rattle down the street. Nor had we long to wait ere they were upon us. Just as the gates were closed, and before we had time to think about getting them fastened, seven or eight rebels appeared in view coming down the street. They were evidently thrown off the scent, and drew up to question the villagers as to our whereabouts. While doing so, one of them caught sight of me through the gate as I held one of my men's horses in the road. An instant shout told me I was seen, as with one impulse they put their horses to a gallop and rode towards us. They were only about 500 yards from us. "Quick! quick!" said I; "your carbines, are they loaded?" "Here is mine," said one, as he picked it up from the ground where he had laid it, in case he wanted it. "Wait till they get quite close," said I, "and then shoot the foremost horse. You can make sure of him. We will stick by you to the last." The other trooper meanwhile had remounted his horse, so that we only awaited the effect of the shot to be off. In another moment they were almost upon us. "Steady," said I, as the man stood with carbine levelled and resting between the bars of the gates; "aim low." As I spoke, his shot re-echoed through the gateway, filling it for a moment with smoke. Its success exceeded my most sanguine expectations. I could just see that the foremost horse, badly wounded,

had fallen headlong forward with his rider to the ground. Wedged in, as they were, in the narrow roadway, and going at a headlong pace, the two horses immediately behind fell over him, and, as far as I recollect, there seemed to me two or three men and horses struggling on the ground at once. But the rest of them, four or five in number, recovering from their confusion, were already at the gates, and, leaning forward, were tugging at them in order to open them, so as to get through. We could not be off for a moment, as we had to wait while the man who had fired had remounted his horse, which was excited and would not stand still. As he was scrambling into his saddle, I saw that our foes had succeeded in wrenching open the gate just sufficiently to get through, one at a time. The foremost of them was already half through, and the rest would have speedily followed, as with shouts and execrations, in their impatience to get at us, they were urging him on from behind. Seeing the necessity of giving them another check, I pulled back my horse just as we were starting, and riding up to within three yards or so of the gate, pistol in hand, I aimed it full at the foremost rebel and fired. I can recollect seeing his horse rear wildly up, but I waited not to see the effect of my shot, for we all three sped away at our best pace along the side of the road. Looking back, after a time, I saw we were pursued no more. Whether it was that they found we were not to be molested with impunity, and were discouraged by the losses which they had suffered; or whether they despaired of catching us; or in consequence of their having started after us in such a hurry they had not brought any more ammunition with them, and therefore gave up the contest as unequal, I cannot say. We had not gone a couple of miles further before we fell in with a patrol of my picket, which, I was informed, was still at the *caravansera* awaiting my return. Being anxious to give our horses as much breathing-time as possible after their severe exertions, I proceeded at a walk in the direction of the picket, taking care to keep a sharp lookout in rear, in case we were again pursued. Arrived at the *caravansera*, I found the remainder of my men duly on the alert and ready to receive me. After a short halt, we began to retrace our steps towards

our camp, which we had left the night before. After we had gone about three miles or so we fell in with the advanced-guard of our own force, which had already struck its camp and marched onwards that morning. Upon reaching the main body of the force I made my report to the general in command (who, with his staff, was riding at the head of the column), and had the satisfaction of receiving a good deal of praise for the information which I had brought, and warm congratulations upon my narrow escape.*

There is no need further to continue the tale. Suffice it to say that the rebels, whose camp I had discovered, were at once followed up; and though they had

taken timely warning, and had already decamped, yet they were pursued for some miles; their guns were all captured, and their whole force scattered to the winds. When our force passed through the village referred to in the foregoing narrative, we found the horse which my trooper had shot in the gateway, and the man whom I had fired at, both lying dead upon the spot where they had fallen.

Reader, my tale of "A Ride for Life" is told. Certainly I and the two who were with me may be fairly said to have taken our lives in our hands and only to have escaped by the skin of our teeth.—*Blackwood's Magazine.*

FRANCE BEFORE THE OUTBREAK OF THE REVOLUTION.

BY H. TAINE.

I.—STATE OF THE PROVINCES.

DURING the night of July 14-15, 1789, the Duke de Laroche-foucauld-Liancourt caused Louis XVI. to be awaked, in order to announce to him the fall of the Bastille. "Why, it is a revolt!" said the King. "Sire," returned the Duke, "it is a revolution." The event was one graver far. Not only had the power slipped from the hands of the King, but it had not fallen into those of the Assembly—it lay there on the ground, ready for use by the unrestrained populace, the violent and excited crowd, the mob that caught it up like a weapon found thrown away in the street. In fact there was no more government; the artificial edifice of human society was everywhere crumbling; men were going back to a state of nature. It was not a revolution but a *dissolution*.

I.

Two causes excite and maintain the universal disturbance. The first, the permanent dearth prolonged during ten years, which, aggravated by the very violence it provokes, is about to exaggerate all popular passions into madness, and to change into convulsive staggering the whole march of the Revolution.

* It may here be stated that M—, the officer in search of whom I had been sent out, rejoined the column in safety some hours later on the same day.

When a river is flowing on a level with its banks, a slight freshet will produce a flood. So is it with the poverty of the eighteenth century. The common people, who find it hard to live when bread is cheap, feel themselves about to die when it becomes dear. Under the pressure of anguish animal instinct revolts, and the general obedience which constitutes public peace depends upon a degree more or less of dryness or damp, heat or cold. In 1788, a very dry year, the crops had been poor, and in addition, on the eve of the harvest,* a fearful hailstorm burst all around Paris from Normandy to Champagne, devastated an area of sixty leagues, and occasioned a loss of a hundred millions. The winter that succeeded was the severest known since 1709; at the end of December the Seine froze the whole way from Paris to Havre, and the thermometer stood at 18 $\frac{3}{4}$ ° below the freezing point. A third of the olive-trees in Provence died, and the remainder had so suffered as to be judged incapable of bearing fruit for two years to come. The same disaster befell Languedoc; in the

* Marmontel; *Mémoires*, t. ii. 221. Albert Babeau: *Histoire de Troyes pendant la Révolution*, i. 91, 187 (Lettre de Huez, maire de Troyes, 30 Juillet, 1788). Archives Nationales, H, 1274 (Lettre de M. de Caraman, 22 Avril, 1789); H, 942 (Cahier des demandes des Etats du Languedoc). Roux et Buchez: *Histoire parlementaire*, i. 283.

Vivaraïs and the Cévennes entire forests of chestnut trees perished, as well as all the forage and corn of the mountain districts; and in the plains, the Rhone overflowed its bed for two months. By the spring of 1789, there was famine everywhere, and from month to month it mounted like a rising tide. In vain did the Government order farmers, proprietors, merchants, to supply the markets; in vain did it double the premium on importation, tax all its ingenuity, run into debt, expend forty millions to furnish France with corn. In vain did individuals, princes, noblemen, bishops, chapters, communities multiply their alms,—the Archbishop of Paris contracting a debt of 400,000 livres; a certain rich man distributing 40,000 francs on the morrow of the hailstorm; a certain Bernardine convent feeding a hundred poor during six weeks.* All was not enough, neither public precaution nor private charity sufficed for such excessive need. In Normandy, where the last treaty of commerce had ruined the manufacture of linen and lace, forty thousand workmen are out of work; in numbers of parishes, a quarter of the inhabitants have to beg.† Here, “almost all the inhabitants, including farmers and proprietors, eat barley bread and drink water;” there “many poor souls eat oat bread, and others soaked bran, which has caused the death of several children.” “Above all,” writes the Parliament of Rouen, “let help be provided for a dying people. . . . Sire, the greater number of your subjects cannot afford the price of bread, and what bread it is that is given to those who buy!” Arthur Young,‡ travelling through France at the moment, hears nothing spoken of except the dearness of bread and the distress of the people. At Troyes the loaf costs four sous the pound—that is to say, eight of our present sous—and the artisans out of work throng the workshops set up by

charity, where they only earn twelve sous a day. In Lorraine, according to the testimony of all observers, “the people are nearly dead with hunger.” In Paris, the number of paupers has trebled itself; there are thirty thousand in the Faubourg St. Antoine alone. Around Paris grain crops have wholly failed, or are damaged.* At the beginning of July, at Montereau, the market is empty. “The bakers could not have baked” if the police officers had not raised the price of bread to five sous the pound; the rye and barley that the intendant sends “are of the worst quality, rotten and in a condition to bring on dangerous diseases; nevertheless the generality of small consumers are reduced to the dire necessity of using this damaged grain.” “At Villeneuve-le-Roi,” writes the mayor, “the two last consignments of rye have been too black and poor to be retailed without an admixture of wheat.” At Sens the barley has “so mouldy a taste that the purchasers throw the detestable bread in the face of the dealer.” At Chevreuse the barley has sprouted and has a poisonous smell. “The unfortunates,” writes an official, “must be indeed pressed with hunger to put up with it.” At Fontainebleau, the half-destroyed rye crop produces more bran than flour, and in order to be made bread it has to be repeatedly manipulated. This bread, however, such as it is, is furiously coveted: “they have to distribute it only through wickets;” and even those who have thus obtained their ration “are often attacked on their way back, and despoiled by the famishing who are stronger than they.” At Nangis the magistrates forbid the same person to buy more than two bushels at the same market. In short, food is so scarce that it becomes a problem how to feed the soldiery; the minister sends two letters, one upon the other, ordering twenty thousand measures of rye to be cut before the harvest.† Thus we find that Paris in a time of perfect peace has the appearance of a

* *L'Ancien Régime*, p. 45. Albert Babeau, i. 91. (The Bishop of Troyes gives 12,000 francs, and the Chapter 6,000, to the Charity Workshops.)

† *L'Ancien Régime*, 440, 507. Floquet: *Histoire du Parlement de Normandie*, vii. 505, 518 (*Représentations du parlement de Normandie*, 3 Mai, 1788; *Lettre du Parlement au Roi*, 15 Juillet, 1789).

‡ Arthur Young: *Journey in France*, 29th June, 2nd and 18th July. *Journal de Paris*, 2 Janvier, 1789; *Lettre du Curé de Sainte-Marguerite*.

* Roux et Buchez, iv. 79 à 82 (*Lettre du bureau intermédiaire de Montereau*, 9 Juillet, 1789; du maire de Villeneuve-le-Roi, 10 Juillet; de M. Baudry, 10 Juillet; de M. Jamin, 11 Juillet; de M. Prioreau, 11 Juillet, etc.). —Montjoie: *Histoire de la Révolution de France*, 2^e partie, ch. xxi. p. 5.

† Roux et Buchez: *ibid.* “It is very grievous,” writes the Marquis d’Autichamp, “to be obliged to cut standing crops; but it is dangerous to let the troops die of hunger.”

famished town rationed at the end of a long siege, and the dearth cannot have been greater nor the nourishment worse in December, 1870, than in the July of 1789.

The nearer drew the 14th of July, says an eye-witness,* the worse became the scarcity. "Every baker's shop was surrounded by a crowd, to which bread was distributed with the utmost parsimony. . . This bread was in general blackish, earthy, bitter, and brought on inflammation of the throat and pain in the bowels. At the Military School and in other dépôts I have seen flour of a detestable quality; portions were yellow, had an offensive smell, and formed blocks so hard that they required to be broken into fragments with a hatchet. For my own part, rebuffed by the difficulty of procuring this unlucky bread, and disgusted with what was offered to me at tables d'hôte, I entirely gave up this form of nourishment. In the evenings I went to the Café du Caveau, where fortunately they were considerate enough to reserve for me two French rolls, the only bread that I ate for a whole week." But this resource was only for the rich. As for the people, in order to obtain this dogs' food they had to stand in *queue* for hours together. They fight, so doing; "they snatch the bread from each other." No more work; "the workshops are deserted." Sometimes after a day's waiting, the artisan has to return home empty-handed; and if he does bring back a small four-pound loaf, it has cost him three francs twelve sous—that is, twelve sous for the bread and three francs for the lost day. In the long line of idle and agitated beings oscillating at the doors of the shops, black thoughts are fermenting. If the bakers lack flour to-night, we shall have nothing to eat to-morrow! A dreadful idea, to confront which the whole force of a government is none too strong; for it is force, and armed force alone—present, visible, menacing—that can maintain order in the midst of famine.

Under Louis XIV. and Louis XV. hunger and suffering had been even more severely felt; but riots, rudely and promptly repressed, had only occasioned partial and transient troubles. Some riot-

ers were hanged, others sent to the galleys, and at once the artisan, the peasant, thoroughly convinced of his impotence, returned to his stall or his plough. Where a wall is plainly too high, no one even thinks of climbing over it. But here we have the wall everywhere cracking, and all its guardians—clergy, nobility, middle class, men of letters, politicians, the very Government itself—busy making a wide breach in it. For the first time the poor, the wretched, discern an outlet; they dash towards it, first in detachments, next *en masse*, and revolt is now universal, as once resignation was.

II.

The reason is, that through this aperture Hope enters like light, and reaches gradually down to the lowest levels. For the last half-century it has been rising, and its beams, that in the first instance, illumined the higher classes in their fine first-floor apartments, next the middle-classes in their *entresol* and ground floors, have for the last two years penetrated into the cellars where the people are at work—nay, into the deep sinks, the dark corners where vagrants, malefactors, a whole unclean and swarming horde hides itself from the pursuit of the law.

To the two first provincial assemblies, instituted by Necker in 1778 and 1779, Loménie de Brienne has in 1787 added nineteen others; under each of these are district assemblies; under each of these last, parochial assemblies;* and the whole administrative machinery is transformed. It is these new assemblies that assess taxes and watch over their collection; that decide on and direct all public works; that judge at the last appeal the greater number of disputed cases. The intendant, the sub-delegate, the elected, thus lose three-quarters of their authority. Between the two rival powers, whose limits are ill-defined, conflicts everywhere arise; authority is a floating thing, and obedience waxes less. The subject no longer feels on his shoulder the superior pressure of the one and only hand which, without possibility of resistance or intervention, bent, pushed, and propelled him. In every parochial district, or even provincial

* Montjoie: *ibid.*, ch. xxxix. v. 37. De Goncourt: *La Société française pendant la Révolution*, p. 53. Déposition de Maillard (Enquête Criminelle du Châtelet sur les événements des 5 et 6 Octobre).

* De Tocqueville: *L'Ancien Régime et la Révolution*, 272-290. De Lavergne: *Les Assemblées Provinciales*, 109. *Procès-verbaux des Assemblées Provinciales*, *passim*.

assembly, common people, "laborers," and occasionally plain farmers, take their seats by the side of nobles and prelates. They listen to and they bear in mind the enormous amount of taxes paid or nearly so by themselves alone—land-tax and its accessories, poll-tax, road duties; and most certainly on their return they talk it over with their neighbors. All these figures are printed; the village attorney discusses them with his clients, artisans and peasants, either on Sundays coming out from mass, or at night in the common room of the inn. And these meetings are authorized, even encouraged, in high places. In the early days of 1788, the provincial assemblies demand from the syndics and the inhabitants of every parish a local inquiry; the detailed account of their grievances is requested, what incomes are exempt from each tax, what the cultivator pays and suffers, how many privileged persons there are in the parish, what their fortune, whether they reside there, to what sum their exemptions amount; and when the replies are given, the attorney who holds the pen names and points out each privileged individual, criticizes his way of life, values his fortune, calculates the injury done to the village by his immunities, inveighs against taxes and officials.

On leaving these assemblies the villager ruminates long over what he has just heard. He contemplates his misfortunes—no longer one by one, but in the aggregate and added to the immensity of misfortune that weighs down his fellows. Moreover he begins to distinguish the causes of his wretchedness. The King is said to be good: why then do his officials take so much of our money? So-and-so—Church dignitaries or noblemen—are not bad people: why do they make us pay in their place? Imagine a beast of burden to whom a flash of reason should suddenly reveal the equine in contrast to the human race; realize, if you can, the novel thoughts that would occur to it,—first of all as to postillions and drivers by whom it is bridled and flogged; and before long as to the benevolent travellers and sensitive ladies that feel for it indeed, but none the less add to the carriage load all their paraphernalia as well as their personal weight.

In the same way now in the mind of the peasants, amidst gloomy reveries, slowly and gradually a new idea takes shape—that

of an oppressed multitude of which he forms part, of a great flock scattered far beyond the visible horizon, and everywhere ill-used, famished, and fleeced. Towards the end of 1788, through the correspondence of intendants and military commanders, one begins to distinguish the dull universal rumbling of a gathering wrath. Men seem to be changing their character; they become suspicious and restive. And this is the very time when the Government, letting go the reins, summons them to direct themselves.* In the month of November, 1787, the King has declared that he convokes the States-General. The 5th of July, 1788, he requires from all public bodies and competent persons memoranda on the subject. On the 8th of August he fixes the date of the session. The 5th of October he convokes the Notables, to deliberate about it with them. The 27th of December he accords a double representation to the third estate, seeing that "his cause is bound up with all generous sentiments, and will always have public opinion on its side." The same day he introduces into the electoral assemblies of the clergy a majority of curés, "because these worthy and useful pastors occupy themselves closely and habitually with the indigence and assistance of the people," whence it follows "that they know more intimately its trials and wants." On the 27th of January, 1789, he regulates the order and form of convocation. From the date of the 7th of February, letters of convocation are sent off one by one. A week later every parochial assembly begins to draw up a report of its grievances, and excites itself by the detail and enumeration of all the distresses that it writes down. All these appeals and all these acts are so many blows struck, which re-echo in the popular imagination. "It is the desire of his Majesty," says the standing order, "that from the extremities of his kingdom and the least-known of its dwellings, every individual should feel assured of his desires and claims reaching the ear of the King." So then the thing is quite true, quite certain. They are invited to speak; they are sent for, they are consulted, they are to be relieved; henceforward their distress will be less; better times are about to begin. This is all they know. Several months later,

* Duvergier: *Collection des Lois et Décrets*. Ibid. 1 à 23 et notamment, p. 15.

in July,* this is the only reply that a peasant woman can make to Arthur Young: "She has been told that there are rich people who wish to do something for the poor of her class;" but as to the who and how and what she knows nothing; the matter is too complicated, out of the reach of a benumbed and mechanical intelligence. One thought only emerges thence—the hope of sudden relief, the persuasion that they are entitled to it, the resolution to help it on in every way; consequently an anxious attitude of expectation ripe for starting, a rigid tension of the will that only waits its opportunity to contract and drive action like a resistless arrow towards some unknown goal, to be all at once revealed. This goal all at once is revealed by hunger. There must needs be corn in the market-place—the farmers and proprietors must needs bring it there; the large purchasers, whether the Government or private individuals, must not transport it elsewhere; it must be cheap, the price must be fixed, the baker must sell it at twopence the pound; grain, flour, wine, salt, and such commodities must no longer pay duty; there must no longer be any duties, neither seigniorial rights nor ecclesiastical tithes, nor royal or municipal taxes. And on the strength of this idea, in all parts of the realm, in March, April, and May, disturbances break out. Contemporary writers do not know what to think of such a scourge,† cannot in any way comprehend this innumerable quantity of malefactors who, without any apparent heads, seem by some common understanding to give themselves everywhere up to the same excesses, and just at the very time, too, when the States-General are about to meet. The fact was, that under the old *régime* the conflagration only smouldered with all apertures closed; suddenly the great door is thrown wide, air enters, and at once the flames burst forth.

III.

At first, however, there are only intermittent isolated fires, that can be extinguished or that die out themselves; but the next moment, in the same place or hard by, cracklings begin again, and their multiplicity and repeated occurrence show

the enormous mass, the depth, the raised temperature of the combustible matter about to explode. During the four months preceding the fall of the Bastille, there were more than three hundred riots in France. They occurred from month to month and week to week in Poitou, Bretagne, Touraine, Orléanais, Normandy, Ile de France, Picardy, Champagne, Alsace, Burgundy, Nivernais, Auvergne, Languedoc, Provence. On the 28th of May, the Parliament of Rouen announces pillages of grain, "violent and bloody fights, in which several men on both sides have been killed," throughout the province, at Caen, St. Lo, Mortain, Granville, Evreux, Bernay, Pont-Audemer, Elbeuf, Louviers, and other places besides. On the 20th of April, the Baron de Bezenval, military commandant of the central provinces, writes:—"I again send to M. Necker a picture of the frightful condition of Touraine and the Orléanais; each letter that I receive from those provinces contains a detailed account of three or four riots, suppressed with much difficulty by the troops."* And throughout the whole extent of the realm the same spectacle is to be seen.

Generally, as is natural, the women are the ringleaders. At Monthéry they have ripped open the sacks of corn with their scissors. Each week on market day, as they learn that the loaf of bread has risen three, four, seven sous, they cry out with indignation. At that price, with the poor wages earned by their husbands, and the want of work besides,† how are they to feed their families? Crowds gather round the sacks and the doors of the bakers; in the midst of vociferations and abuse, a rush is made; the proprietor or shopkeeper is pushed aside, thrown down; the commodity is in the hands of the purchasers and the hungry; each snatches what he wants, pays, or does not pay, and runs off with his booty.

Sometimes the attack is a joint and premeditated one.‡ At Bray-sur-Seine, on the 1st of May, the villagers gather from a circuit of four miles, armed with stones,

* Floquet: Histoire du Parlement de Normandie, vii. 503. Archives Nationales, H, 1453.

† Arthur Young, 29th June (at Nangis).

‡ Archives Nationales, H, 1453. Lettre du Duc de Mortemart, Seigneur de Bray, 4 Mai; de M. de Ballainvilliers, Intendant du Languedoc, 15 Avril.

* Arthur Young, July 12th, 1789 (in Champagne).

† Montjoie, 1re partie, 102.

knives, and sticks, and numbering four thousand, force the laborers and farmers who have brought in the grain to sell it at three livres instead of four livres ten sous the bushel, and threaten to begin again next market day; then, consequently, the farmer will not return, then the marketplace will be empty, and soldiers will be required to prevent the pillaging of the inhabitants of Bray. At Bagnols, in Languedoc, on the 1st and 2nd of April, the peasants, armed with cudgels and assembled by beat of drum, "traverse the town threatening bloodshed and conflagration, unless corn and money be given them." They search for grain in private houses, share it among themselves at a reduced price, "promising to pay for it next harvest;" compel the consuls to put bread at two sous the pound, and to augment the daily wage by four sous.

Indeed, this is now the customary proceeding; the people no longer obey the authorities, but the authorities the people. Consuls, sheriffs, mayors, syndics, municipal officers, grow confused and feeble in presence of this immense clamor; they feel that they are about to be trodden under foot or thrown out of window. Others, of firmer texture, who know that a mob in revolt is demented, have a scruple about shedding blood; at all events they yield for once, hoping that on the next market day soldiers will be numerous and precautions better taken. At Amiens, after a "very sharp riot,"* they resolve to take the corn belonging to the Jacobins, and to sell it to the people at a third below its value, in a space girdled by soldiers. At Nantes, where the Hôtel de Ville has been taken possession of, they are obliged to lower the price of the loaf a penny per pound. At Angoulême, in order to avoid having recourse to arms, the Count d'Artois is requested to surrender for two months his duty on flour, the price of the bread is fixed, the bakers obtaining compensation. At Certe the authorities are so maltreated that they give up everything; the populace has sacked their houses and got the upper hand; they proclaim at the sound of the trumpet that all its demands are granted.

* Archives Nationales, H, 1453. Lettre de l'Intendant M. d'Agay, 30 Avril; des Officiers Municipaux de Nantes, 9 Janvier; de l'Intendant M. Meulan d'Abois, 22 Juin; de M. de Ballainvilliers, 15 Avril.

At other times the crowd dispenses with the administration, and acts independently. If grain fails at the market, they go to seek it wherever it may be found—at the houses of the proprietors or farmers, who dare not bring it to market for fear of pillage; in the religious houses, who are bound by a royal edict to have always a year's harvest in store; in the granaries where the Government keeps its provisions; in the convoys despatched by the inspectors to starving towns. Each one for himself; so much the worse for his neighbor. The people of Fougères fight with and drive out those of Ernée who come to buy at their market, and the same violence is shown at Vitry to the inhabitants of Maine.* At Saint Léonard the people keep back the grain that was setting off for Limoges, at Bost that destined for Aurillac, at Saint-Didier what was to be sent to Moulin, at Tournus what was ready for despatch to Mâcon. In vain were escorts added to convoys: troops of men and women, armed with hatchets and guns, lurk in the woods along the road, and jump to the bridle of the horses. They have to be sabred in order that the procession may advance. In vain are reasons, explanations, kind words abundantly lavished; nay, corn is even offered to them for money; they refuse it, crying that the convoy shall not set out. They have made up their minds, their resolution is that of a bull who stops up the road, with lowered horns. The corn is theirs, since it is in their country; whoever carries it off or keeps it to himself is a thief. Nothing can root out that fixed idea of theirs. At Chantenay, near Mans,† they prevent a miller from taking to his mill what he has just been buying. At Montdragon, in Languedoc, they stone a merchant who was sending his last load elsewhere; at Thiers strong bodies of workmen go and gather the corn in the fields; a proprietor in whose possession some is found is nearly killed; they drink in the cellars, then leave the wine to run out.

* Archives Nationales, H, 1453. Lettre du Comte de Langeron, 4 Juillet; de M. de Meulan d'Abois, 5 Juin; procès-verbal de la Maréchaussée de Bost, 29 Avril. Lettres de M. de Chazerat, 29 Mai; de M. de Bezenval, 2 Juin; de l'Intendant M. Amelot, 25 Avril.

† Archives Nationales, H, 1453. Lettre de M. de Bezenval, 27 Mai; de M. de Ballainvilliers, 25 Avril; de M. de Chazerat, 12 Juin; de M. de Foullonde, 19 Avril.

At Nevers, the bakers having failed to stock their presses for four days, the populace takes forcible possession of the granaries of private individuals, merchants, religious communities. "The terrified merchants let their grain go at whatever price is named, indeed the greater portion of it is stolen in the presence of the guards;" and in the tumult caused by these domiciliary visits, a number of houses are sacked.

At this time woe to all those who are connected with the charge, the acquisition, the traffic, the management of grain! The popular imagination needs living beings to whom it may impute its woes and on whom it may wreak its revenge; in its eyes that whole particular class is composed of monopolizers, forestallers, and, at all events, of enemies of the public. Near Angers the house of the Benedictines is attacked, their enclosure and woods are devastated.* At Amiens "the people were on the point of pillaging and, perhaps, burning down the houses of two commercial men who had constructed mills, grinding on an economical principle." Held in check by the soldiers, they content themselves with breaking the windows; but "other groups go to destroy or pillage the houses of some private persons whom they suspect of monopoly." At Nantes, a Sieur Geslin being deputed by the people to visit a certain house, and finding no corn therein, the cry is raised, "He is an embezzler, an accomplice." The crowd falls upon him, he is wounded and nearly cut to pieces. It is manifest that there is no longer any security in France; possessions, life even, are endangered. The primary property of all—subsistence—is violated in a thousand places, and is everywhere precarious and threatened. Everywhere the intendant and sub-delegates call for assistance, declare the mounted police impotent, and demand regular troops. And now it happens that public force, already insufficient, dispersed, tottering, finds itself set upon, not only by the blind rage of hunger, but by the mischievous instincts that profit by all disorder, and the permanent selfishness that every political convulsion frees from restraint.

* Archives Nationales, H, 1453. Lettre de l'Intendant M. d'Aine, 12 Mars; de M. d'Agay, 30 Avril; de M. Amelot, 25 Avril; des Officiers Municipaux de Nantes, 9 Janvier, etc.

IV.

Smugglers, forgers, poachers, vagabonds, beggars, convicts,* we have seen how numerous these are, and what a single year of scarcity does to add to their number. All these are so many recruits for riotous assemblies, and during the riot and under cover of it each of them fills his sack.

"In the Pays de Caux,† and even up to the environs of Rouen, at Roncherolles, Quévreville, Préaux, Saint-Jacques, and in all the surrounding district, bands of armed brigands break into the houses, especially into those of the priests, and lay violent hands on whatever suits them." "To the south of Chartres, three or four woodmen, out of the forests of Bellême, use their hatchets against all who resist them, and get grain at the price they choose to pay."

In the neighborhood of Etampes fifteen bandits enter the farms by night, and make the farmer pay a ransom by the threat of incendiarism. In Cambrésis, they pillage the abbeys of Vauchelles, Verger, and Guillemans, the château of the Marquis de Besselard, the property of M. Doisy, two farms, the wagons of corn that pass along the road to Saint Quentin, and, in addition, some farms in Picardy. "The focus of this revolt is in a few villages, on the confines of Picardy and Cambrésis, villages addicted to smuggling and the license it induces." The peasants have allowed themselves to be enticed by bandits; a man slips rapidly along the incline of theft, and such or such a one, semi-honest till then, having once taken part carelessly or reluctantly in a riot, will begin again, tempted either by impunity or gain. In fact "it is not extreme need that excites them." Theirs is "a speculative cupidity, a new kind of smuggling." An old carabineer, sabre in hand, a forester, and "about eight persons in pretty easy circumstances, place themselves at the head of four hundred to five hundred men, repair daily to three or four villages, compel all who have corn to give it at twenty-

* L'Ancien Régime, 498 à 509.

† Floquet, vii. 508 (Rapport du 27 Février). Hippeau: Le Gouvernement de Normandie, iv. 377 (Lettre de M. Perrot, 23 Juin). Archives Nationales, H, 1453. Lettre de M. de Sainte Suzanne, 29 Avril. Ibid. F. 7, 3250. Lettre de M. de Rochambeau, 16 Mai. Ibid. F. 7, 3185. Lettre de l'Abbé Duplaquet, Député du Tiers-état de Saint Quentin, 17 Mai. Lettre de trois laboureurs des environs de Saint Quentin, 14 Mai.

four" and even at eighteen "livres the sack." Those of the band who declare themselves penniless carry off their portion without paying for it. The others, having paid what price they please, now proceed to sell again at a profit, and even ask forty-five livres the sack—an excellent stroke of business, in which greed goes halves with poverty. When the next harvest comes the temptation will be similar. "They have threatened to come and gather in our crops for us, and also to carry off our cattle and sell the meat at two sous a pound." In all great insurrections there are such malefactors, vagrants, outlaws, savage and desperate vagabonds, who gather like wolves wherever they scent a prey. These it is who serve as guides and executioners to private and public grudges. Near Uzès, twenty-five men wearing masks and carrying guns and sticks, enter the dwelling of a notary, fire a pistol at him, load him with blows, destroy his furniture, burn his registers and all the title-deeds and papers deposited with him by the Count of Rouvres; of this band seven are arrested, but the people are on their side, attack the mounted police, and set them free.* They are identified by their actions, their impulse to destroy for destroying's sake, their foreign accent, their gaunt faces, and their rags. More of them come from Paris to Rouen, and for four days the town is at their mercy.† Magazines are broken into, carts of corn unloaded, convents and seminaries forced to pay ransom; they attack the house of the Procureur-Général, who has denounced them, and want to cut him to pieces; they break his mirrors, his furniture, leave laden with booty; go into the town and the outskirts to pillage manufactories, and break or burn machinery. These are henceforth the new leaders, for in every riot it is he who is most audacious, most entirely unembarrassed by scruples, who walks at the head and sets the example of havoc. The example is contagious; the crowd had begun by wanting bread, it ends by murder and conflagration, and the savagery let loose adds its unlimited horrors to the limited revolt of want.

V.

Such as it is, however, spite of scarcity and brigands, this revolt might perhaps be got under, but for that which renders it irresistible: its own belief that it is authorized, actually authorized, by those on whom the task of suppressing it is laid. Here and there break out words and acts of terrible *naïveté* which reveal beyond the so gloomy present a future more threatening still. Already on the 9th of January, 1789, there rises amidst the populace that takes possession of the Hôtel de Ville at Nantes, and lays siege to the bakers' shops,* "the cry of 'Vive la Liberté,' mingling with that of 'Vive le Roi.'" A few months later, around Ploërmel, the peasants refuse to pay tithes, alleging that the *cahier* of their assembly demands their abolition. In Alsace, dating from the month of March, the same refusal: "in many places" a number of communities even pretend that they are at liberty to pay no more taxes until their deputies to the States-General shall have definitely fixed the sum of public contributions. In Dauphiné, it is resolved in printed and published deliberations, that no more "personal duties" shall be paid, and the seigneurs who are the losers dare not go to law. At Lyons the people are persuaded that "all collection of duties should cease," and on the 29th of June the news of the reunion of the three Orders "having been received," "astonished at the illuminations and signs of public rejoicing," they believe the happy times to have really begun, and form a plan for obtaining meat at four sous and wine at the same price. The publicans think that the town dues are ere long to be abolished, and that in the meantime the King, in honor of the reunion of the three Orders, has granted a three days' exemption from all duties to Paris, and that this ought equally to apply to Lyons. Upon which the crowd rushes frantically to the barriers, to the Porte Saint-Clair, the Porte Perache, the Bridge of La Guillotière, burns

* Archives Nationales, H, 1453. Lettre du Comte de Périgord, Commandant Militaire du Languedoc, 22 Avril.

† Floquet, vii. 511 (du 11 au 14 Juillet).

* Archives Nationales, H, 1453. Lettre des Officiers Municipaux de Nantes, 9 Janvier; du Subdélégué de Ploërmel, 4 Juillet. Ibid. F¹, 2353. Lettre de la Commission Intermédiaire d'Alsace, 8 Septembre. Ibid. F¹, 3227. Lettre de l'Intendant Caze de la Bove, 16 Juin. Ibid. H, 1453. Lettre de Terray, Intendant de Lyon, 4 Juillet; du Prévôt des Echevins, 5 et 7 Juillet.

or demolishes the bureaus, destroys the registers, sacks the houses of the officials, and takes possession of the wine that is there deposited. Meanwhile the rumor has spread through the country that the entrance into the town is now free; the peasants flock in with such prodigious files of waggons laden with wine and drawn by several oxen, that in spite of the guard that has been re-established there, they are obliged to be admitted throughout the day without payment; it is only on the 7th of July that it again becomes possible to collect the duties. The same goes on in the southern provinces, where the principal taxes are levied upon articles of consumption; there, too, it is in the name of the Government that the collections are suspended. At Agde* "the people is madly persuaded that it is everything, and can do everything, by reason of the so-called will of the King as to equality of ranks"—for it is thus that it interprets, after its liking and in its own language, the double representation granted to the third estate. In consequence of this, the people threaten the town with general pillage unless the price of all provisions be lowered; and suppress the provincial duty laid on wine, fish, and meat; in addition to which, "they are determined to name consuls taken from their own class," and the bishop, the seigneur of the town, the mayor, and the notables, against whom the peasants in the country round have been gathered by force, find themselves obliged to proclaim to the sound of the trumpet that the popular demands are all complied with. Three days later they insist that the duty on grinding be diminished by half, and go to seek out the bishop to whom the mills belong. The prelate, who is ill, becomes faint in the street and seats himself on a boundary-stone; there the session is at once held, and he is obliged to sign an act of renunciation; in consequence of which "his mill, set down at 15,000 livres, is now reduced to 7,500." At Limoux, under pretext of seeking for grain, the populace break into the dwellings of the comptrollers and farmers of the taxes, carry off their registers, and throw them, together with the furniture of the officials, into the

water. In Provence, things are still worse; for through an enormous injustice and an inconceivable imprudence, all the taxation of the towns rests on flour; hence it is to this taxation that the scarcity of bread is directly attributed; and this is why the fiscal agent becomes the visible enemy, and the revolts of hunger develop into insurrections against the State.

VI.

Here, too, political novelties are the spark that sets fire to the mass of powder; everywhere it is on the very day of the electoral assembly that the people rise; in less than a fortnight there are from forty to fifty insurrections in the province. The popular imagination—like a child—goes straight to its goal; reforms having been announced, it believes them already come, and, to make still more sure, executes them on the spot; since we are to be relieved, let us relieve ourselves.

"This is not an isolated revolt like the ordinary ones," writes the commandant of troops;* "here we have the party united and guided by uniform principles; the same errors are spread abroad in all minds. . . . The principles instilled into the people are that the King would have perfect equality, would do away with nobles and bishops, with rank, titles, and seigniorial rights. Thus these misled beings believe themselves to be in their duty and following the desire of the King."

Grand-sounding words have had their effect; they have been told that the States-General were going to bring about the "regeneration of the kingdom," they have drawn the conclusion that "the epoch of the convocation" should be that of "an entire and absolute change in the conditions and fortunes of the community." Hence "the insurrection against the nobility and the clergy is as fierce as it is general." "In several places it has been pretty widely spread that *it was a species of war declared against proprietors and*

* Archives Nationales, H, 1453. Lettre du Maire et des Consuls d'Agde, 21 Avril; de M. de Périgord, 19 Avril et 5 Mai.

* Archives Nationales, H, 1453. Lettres de M. de Caraman, 23, 26, 27, 28 Mars; du Sénéchal Missiessy, 24 Mars; du Maire d'Hyères, 25 Mars, etc. Ibid. H, 1274; de M. de Montmayran, 2 Avril; de M. de Caraman, 18 Mars, 12 Avril; de l'Intendant, M. de la Tour, 2 Avril; du Procureur-Général, M. d'Antheman, 17 Avril, et rapport du 15 Juin; des Officiers Municipaux de Toulon, 11 Avril; du Subdélégué de Manosque, 14 Mars; de M. de Saint-Tropez, 21 Mars—Procès-verbal signé par 119 témoins sur l'émeute du 5 Mars à Aix, etc.

property; and in the towns, as in the country, the people persist in declaring that they will pay nothing whatever, neither taxes, nor duties, nor debts."

Naturally it is on the *piquet* or meal tax that the first assault is made. At Aix, Marseilles, Toulon, and in more than forty towns and villages, it is at once abolished; at Aupt and Luc, nothing remains of the weighing-house but the four walls; at Marseilles, the dwelling of the farmer of the slaughter-houses, at Brignolles, that of the 'director of the administration of leather, are sacked; the people have resolved to purge the country of all the administrative employés. This is but a beginning—bread and other commodities must be cheap, and be so at once. At Arles the corporation of sailors, presided over by M. de Barras, the consul, has just elected its representatives; by way of a finish to the meeting they insist that M. de Barras should reduce by decree the price of all victuals; and at his refusal "they throw open the window, calling out, 'We have got him; we have only to throw him into the street, others will pick him up.'" No alternative but to yield; the decree is proclaimed by the city trumpeter, and, at every taxed article named, the crowd cries, "Long live the King and M. de Barras." In presence of brute force concession was unavoidable. At the same time the perplexity is great, for by the suppression of this meal tax the towns lose all their revenue, and in addition they have to indemnify the bakers and butchers. Toulon, for example, contracted a daily debt of 2,500 livres.

In such disorder as this, woe to those suspected of having contributed directly or indirectly to the people's grievances! At Toulon, there is a demand for the heads of the mayor who signed the taxes and of the keeper of records, who had the care of the lists. At Manosque, the Bishop of Sisteron, who was visiting the seminary, was accused of favoring a monopolizer. As he was walking to his carriage he was hooted, threatened, mud was thrown at him, and then stones. The consuls in charge and the sub-delegate, who ran to protect him, were struck and thrown aside; while some madmen, under his very eyes, begin "to dig a grave in which to bury him." Defended by five or six brave men, he reaches his carriage amidst a hail of pebbles, wounded in the head and many parts

of his body; and he is only saved because his horses, being also stoned, run away with him. Strangers, Italians, bandits, have joined the peasants and artisans, and words are spoken and acts committed which announce a *Jacquerie*. "The most frantic cry to the bishop, 'We are poor, you are rich; we mean to get all your wealth.'"^{*} Elsewhere, "the seditious bands place all well-to-do people under contribution." At Brignolles, thirteen houses are pillaged from top to bottom, and thirty others partially so. At Aupt, M. de Montferrat, who resists is killed and "cut into little pieces." At La Seyne, the populace, led by a peasant, assemble to the beat of drum before the dwelling of one of the principal citizens, bidding him prepare for death, and "they will do him the honor of interring him." He flies; his house is sacked, as well as the guard-house, and on the morrow the head of the band "compels the leading inhabitants to give him money, in order, he says, to indemnify the peasants who had left their work" and employed their day in the service of the public. At Peinier, the *Président de Peinier*, an octogenarian, is "besieged in his château by a band of a hundred and fifty workmen and peasants," who have brought a consul and a notary with them, and with the assistance of these two functionaries force the president to sign an act renouncing all his seigniorial rights of every kind. At Sollier, they destroy the mills of M. de Forbin-Janson, sack the house of his man of business, pillage the château, demolish the roof, the chapel, the altar, the railings and armorial bearings, enter the cellars, stave in the wine barrels, carry off all that is portable; "the carrying went on two days," the loss to the marquis amounting to 100,000 crowns. At Riez, they surround the episcopal palace with fagots, and threaten to burn it down, "but admit the bishop to terms upon a promise of 50,000 livres," and require him to burn his archives. They destroy the château of the Provost of Pignan, and seek for the Bishop of Toulon that they may kill him. In a word, the sedition is *social*, for it strikes at all who profit by or rule in the established order.

^{*} Archives Nationales, H, 1274. Lettre de M. de la Tour, 2 Avril (avec mémoire détaillé et dépositions).

Indeed, in watching the popular actions one would say that the theory of the *Contrat Social* had been infused into men's minds. They treat magistrates as servants, decree laws, behave as sovereigns, exercise public control, and summarily, arbitrarily, brutally establish what they hold conformable to natural rights. At Peinier they demand a second electoral Assembly, with right of suffrage for themselves. At Saint-Maximin they take on themselves the election of new consuls and officers of justice. At Sollier, they compel the magistrate's representative to give in his resignation, and break his baton of office. At Barjols, "they turn magistrates and consuls into mere valets, announce that they are the masters, and will deal out justice themselves." And in fact they do deal it out, as they are able to discern it through many exactions and thefts. So-and-so has corn, he ought to divide it with such or such another who lacks it. So-and-so has money, he ought to give some of it to those who have none wherewith to buy bread. Acting upon this principle at Barjols, they tax the Ursulines to the amount of 18,000 livres, carry off fifty loads of wheat from the chapter, eighteen from one poor artisan, forty from another, and force canons and beneficed clergy to give receipts to their farmers. Then, from house to house, cudgel in hand, they compel some to contribute money, others to renounce their claims against their debtors, "one to desist from a criminal prosecution, another to give up a decision in his favor, another, again, to reimburse the cost of a lawsuit won years ago, a father to give his consent to the marriage of his son." All their grievances return to mind, and it is well known how tenacious the peasant's memory is. Now that he is master he redresses wrongs—especially those he believes to have been inflicted on himself. General restitution is the order of the day, and first of all feudal duties hitherto received. The man of business of M. de Montmeyan is deprived of all the money he has, to make up for all that during fifteen years he must have gained as notary. The former Consul of Brignolles had in 1775 inflicted fines to the value of about 1700 or 1800 francs and applied them to the relief of the poor: that sum is now withdrawn from his cash-box. In the eyes of the peasants not only are the consuls and lawyers a mischievous

set, but all those papers that they work amongst are even worse. To the flames then with all old documents, not only clerks' registers, but also, at Hyères, all papers belonging to the town-hall and the principal notary. In the matter of papers the only good ones are the new, those bearing discharges, receipts, or obligations in favor of the people. At Brignolles, millowners are constrained to grant an act of sale by which they yield up their mills to the commune for a yearly rent of 5000 francs payable in ten years and not bearing interest,—a measure that ruins them; and at the sight of this signed contract the peasants shout for joy, having such confidence in stamped paper that they at once proceed to order a thanksgiving mass to be said at the Cordeliers.

Alarming symptoms these, indicating the secret disposition, the fixed resolve, the future task of the rising power. If it prove victorious, it will begin by destroying all old papers, lists, title-deeds, contracts, trusts, that it now has perforce to endure; perforce too it will have others drawn up to its own advantage, and the scribes will be the deputies, the administrators, that it holds in its rude grasp.

This causes, however, no alarm in high places; it is even thought that the revolt has something good about it, since it obliges the towns to suppress unjust taxes.* The young men of the new Marseillaise guard are permitted to go to Aubagne "to demand from M. le Lieutenant Criminel and M. l'Avocat du Roi the liberation of prisoners." There is toleration for the disobedience of Marseilles in refusing to receive the magistrates sent by letters patent to commence informations. Better still, in spite of the remonstrances of the Parliament of Aix, a general amnesty is proclaimed; "a few ringleaders only excepted, who are yet at liberty to leave the kingdom." The leniency of the King and

* Archives Nationales, H, 1274. Lettre de M. de Caraman, 22 Avril: "Il est résulté de ce malheur un bien réel. . . . On a reporté sur la classe aisée ce qui excédait les forces des malheureux journaliers. . . . On s'aperçoit encore d'un peu plus d'attention de la noblesse et des gens aisés pour les pauvres paysans; on s'est accoutumé à leur parler avec plus de douceur." M. de Caraman a été blessé, ainsi que son fils, à Aix, et, si les soldats lapidés ont fini par tirer, c'est sans son ordre. Ibid., Lettre de M. d'Antheman, 17 Avril; de M. de Barentin, 11 Juin.

of the military chiefs is admirable; it is an admitted thing that the people is a child, that it never offends except through error, that its repentance must be believed in, and that so soon as it returns to order, it must be welcomed back with paternal love; the truth being that the child is a blind giant exasperated by suffering; hence it breaks whatever it touches, not only destroying in the provinces those local wheels which after a temporary disarrangement may still be repaired, but also the central main-spring which gives movement to all the rest, and the destruction of which will throw the whole machine out of gear.—*Contemporary Review*.

MY WIFE.

BY FREDERICK LOCKER.

My little wife is out beyond the burn,
I see her parasol behind the fir,
And here am I inditing verse to her
Ere she return.

That pretty bird is happy there conceal'd,
This fragrant chamber smiles a peaceful smile,—
What joy to sing the joys of home—the while
My Joy's afiel!

My spouse is mild—she's meek as any nun,
And yet her spiritual calm is such . . .
Somehow one's always feeling she is much
Too good for one.

She thinks I'm wise and handsome—'tis her creed.
I wonder am I either! On my word
Sometimes I've wonder'd "an my bonnie bird"
Thinks so indeed:

Perhaps! for she my homage ne'er repels;
Perhaps I might have loved her half a life,
Perhaps—had she but been the little wife
Of some one else.

But why should I complain of cross or cares?
While entertaining her (who won't complain)
It may be I an angel entertain
—And unawares.

Cornhill Magazine.

MACLEOD OF DARE.

BY WILLIAM BLACK, AUTHOR OF "MADCAP VIOLET," "A PRINCESS OF THULE," ETC.

CHAPTER IV.

WONDER-LAND.

A COOL evening in June—the club-windows open—a clear twilight shining over Pall Mall—and a tête à tête dinner at a small, clean, bright table: these are

not the conditions in which a young man should show impatience. And yet the cunning dishes which Mr. Ogilvie, who had a certain pride in his club, though it was only one of the junior institutions, had placed before his friend, met with but scant curiosity: Macleod would rather

have handed questions of cookery over to his cousin Janet. Nor did he pay much heed to his companion's sage advice as to the sort of club he should have himself proposed at, with a view to getting elected in a dozen or fifteen years; a young man is apt to let his life at forty shift for itself.

"You seem very anxious to see Miss White again," said Mr. Ogilvie with a slight smile.

"I wish to make all the friends I can while I am in London," said Macleod. "What shall I do in this howling wilderness when you go back to Aldershot?"

"I don't think Miss Gertrude White will be of much use to you. Colonel Ross may be. Or Lord Beauregard. But you cannot expect young ladies to take you about."

"No?" said Macleod gravely, "that is a great pity."

Mr. Ogilvie, who, with all his knowledge of the world, and of wines, and cookery, and women, and what not, had sometimes an uneasy consciousness that his companion was covertly laughing at him, here proposed that they should have a cigar before walking up to the Piccadilly Theatre; but as it was now ten minutes to eight, Macleod resolutely refused. He begged to be considered a country person, anxious to see the piece from the beginning. And so they put on their light top-coats over their evening dress and walked up to the theatre.

A distant sound of music; an odor of escaped gas; a perilous descent of a corkscrew staircase; a drawing aside of heavy curtains; and then a blaze of yellow light shining within this circular building, on its red satin and gilt plaster, and on the spacious picture of a blue Italian lake, with peacocks on the wide stone terraces. The noise at first was bewildering. The leader of the orchestra was sawing away at his violin as savagely as if he were calling on his company to rush up and seize a battery of guns. What was the melody that was being banged about by the trombones, and blared aloud by the shrill cornets, and sawed across by the infuriated violins? "*When the heart of a man is oppressed with care*?" The cure was never insisted on with such an angry vehemence.

Recovering from the first shock of the fierce noise, Macleod began to look around this strange place, with its magical colors and its profusion of gilding; but nowhere

in the half-empty stalls or behind the lace curtains of the boxes, could he make out the visitor of whom he was in search. Perhaps she was not coming, then? Had he sacrificed the evening all for nothing? As regarded the theatre, or the piece to be played, he had not the slightest interest in either. The building was very pretty, no doubt; but it was only, in effect, a superior sort of booth; and as for the trivial amusement of watching a number of people strut across a stage and declaim—or perhaps make fools of themselves to raise a laugh—that was not at all to his liking. It would have been different had he been able to talk to the girl who had shown such a strange interest in the gloomy stories of the northern seas; perhaps, though he would scarcely have admitted this to himself, it might have been different if only he had been allowed to see her at some distance. But her being absent altogether? The more the seats in the stalls were filled—reducing the chances of her coming—the more empty the theatre seemed to become.

"At least we can go along to that house you mentioned," said he to his companion.

"Oh, don't be disappointed yet," said Ogilvie; "I know she will be here."

"With Mrs. Ross?"

"Mrs. Ross comes very often to this theatre. It is the correct thing to do. It is high art. All the people are raving about the chief actress; artists painting her portrait; poets writing sonnets about her different characters; no end of a fuss. And Mrs. Ross is very proud that so distinguished a person is her particular friend."

"Do you mean the actress?"

"Yes;—and makes her the big feature of her parties at present; and society is rather inclined to make a pet of her too—patronising high art, don't you know? It's wonderful what you can do in that way. If a duke wants a clown to make fellows laugh after a Derby dinner, he gets him to his house, and makes him dance; and if the papers find it out, it is only 'raising the moral status of the pantomime.' Of course, it is different with Mrs. Ross's friend—she is all right socially."

The garrulous boy was stopped by the sudden cessation of the music; and then the Italian lake and the peacocks disappeared into unknown regions above;

and behold! in their place a spacious hall was revealed—not the bare and simple hall at Castle Dare with which Macleod was familiar—but a grand apartment, filled with old armor, and pictures, and cabinets, and showing glimpses of a balcony and fair gardens beyond. There were two figures in this hall; and they spoke—in the high and curious falsetto of the stage. Macleod paid no more heed to them than if they had been marionettes. For one thing, he could not follow their speech very well; but in any case, what interest could he have in listening to this old lawyer explaining to the stout lady that the family affairs were grievously involved? He was still intently watching the new comers who straggled in, singly or in pairs, to the stalls; when a slight motion of the white curtains showed that some one was entering one of the boxes, the corner of the box was regarded with as earnest a gaze as ever followed the movements of a herd of red-deer in the misty chasms of Ben-an-Sloich. What concern had he in the troubles of this over-dressed and stout lady, who was bewailing her misfortunes and wringing her bejewelled hands?

Suddenly his heart seemed to stand still altogether. It was a light, glad laugh—the sound of a voice he knew—that seemed to have pierced him as with a rifle-ball; and at the same moment, from the green shimmer of foliage in the balcony, there stepped into the glare of the hall a young girl with life and laughter and a merry carelessness in her face and eyes. She threw her arm round her mother's neck, and kissed her. She bowed to the legal person. She flung her garden-hat on to a couch; and got up on a chair to get fresh seed put in for her canary. It was all done so simply, and naturally, and gracefully, that in an instant a fire of life and reality sprang into the whole of this sham thing. The older woman was no longer a marionette, but the anguish-stricken mother of this gay and heedless girl. And when the daughter jumped down from the chair again—her canary on her finger—and when she came forward to pet and caress and remonstrate with her mother—and when the glare of the lights flashed on the merry eyes, and on the white teeth and laughing lips—there was no longer any doubt possible. Macleod's face was quite pale.

He took the programme from Ogilvie's hand, and for a minute or two stared mechanically at the name of Miss Gertrude White printed on the pink tinted paper. He gave it him back without a word. Ogilvie only smiled; he was proud of the surprise he had planned.

And now the fancies and recollections that came rushing into Macleod's head were of a sufficiently chaotic and bewildering character. He tried to separate that grave and gentle and sensitive girl he had met at Prince's Gate from this gay mad-cap; and he could not at all succeed. His heart laughed with the laughter of this wild creature; he enjoyed the discomfiture and despair of the old lawyer, as she stood before him twirling her garden-hat by a solitary ribbon; and when the small white fingers raised the canary to be kissed by the pouting lips, the action was more graceful than anything he had ever seen in the world. But where was the silent and serious girl who had listened with such rapt attention to his tales of passion and revenge—who seemed to have some mysterious longing for those gloomy shores he came from—who had sung with such exquisite pathos "A wee bird cam' to our ha' door"? Her cheek had turned white when she heard of the fate of the son of Maclean: surely that sensitive and vivid imagination could not belong to this audacious girl, with her laughing, and teasings, and demure coquetry?

Society had not been talking about the art of Mrs. Ross's protégée for nothing; and that art soon made short work of Keith Macleod's doubts. The fair stranger he had met at Prince's Gate vanished into mist. Here was the real woman; and all the trumpery business of the theatre, that he would otherwise have regarded with indifference or contempt, became a real and living thing; insomuch that he followed the fortunes of this spoiled child with a breathless interest and a beating heart. The spell was on him. Oh, why should she be so proud to this poor lover, who stood so meekly before her? "Coquette! coquette!" (Macleod could have cried to her) "the days are not always full of sunshine; life is not all youth and beauty and high spirits; you may come to repent of your pride and your cruelty." He had no jealousy against the poor youth who took his leave; he pitied him—but it was for her sake; he seemed to

know that evil days were coming, when she would long for the solace of an honest man's love. And when the trouble came—as speedily it did—and when she stood bravely up at first to meet her fate, and when she broke down for a time, and buried her face in her hands, and cried with bitter sobs, the tears were running down his face. Could the merciful Heavens see such grief, and let the wicked triumph? And why was there no man to succor her? Surely some times arise in which the old law is the good law; and a man will trust to his own right arm to put things straight in the world? To look at her—could any man refuse? And now she rises and goes away; and all the glad summer-time and the sunshine have gone; and the cold wind shivers through the trees, and it breathes only of farewell. Farewell, O miserable one! the way is dark before you; and you are alone. Alone, and no man near to help.

Macleod was awakened from his trance. The act-drop was let down; there was a stir throughout the theatre; young Ogilvie turned to him.

"Don't you see who has come into that corner box up there?"

If he had been told that Miss White, come up from Prince's Gate, in her plain black dress and blue beads, had just arrived and was seated there, he would scarcely have been surprised. As it was, he looked up, and saw Colonel Ross taking his seat, while the figure of a lady was partially visible behind the lace curtain.

"I wonder how often Mrs. Ross has seen this piece?" Ogilvie said. "And I think Colonel Ross is as profound a believer in Miss White as his wife is. Will you go up and see them now?"

"No," Macleod said absently.

"I shall tell them," said the facetious boy, as he rose, and got hold of his crush-hat, "that you are meditating a leap on to the stage, to rescue the distressed damsel."

And then his conscience smote him.

"Mind you," said he, "I think it is awfully good myself. I can't pump up any enthusiasm for most things that people rave about; but I do think this girl is uncommonly clever. And then she always dresses like a lady."

With this high commendation Lieutenant Ogilvie left, and made his way upstairs to Mrs. Ross's box. Apparently he

was well received there; for he did not make his appearance again at the beginning of the next act, nor, indeed, until it was nearly over.

The dream-world opens again; and now it is a beautiful garden, close by the ruins of an old abbey; and fine ladies are walking about there. But what does he care for these marionettes uttering meaningless phrases? They have no more interest for him than the sham ivy on the sham ruins, so long as that one bright, speaking, pathetic face is absent: and the story they are carrying forward is for him no story at all, for he takes no heed of its details in his anxious watching for her appearance. The sides of this garden are mysteriously divided: by which avenue will she approach? Suddenly he hears the low voice—she comes nearer—now let the world laugh again! But alas! when she does appear, it is in the company of her lover; and it is only to bid him good-bye. Why does the coward hind take her at her word? A stick, a stone, a wave of the cold sea, would be more responsive to that deep and tremulous voice, which has now no longer any of the arts of a wilful coquetry about it, but is altogether as self-revealing as the generous abandonment of her eyes. The poor cypher!—he is not the man to woo and win and carry off this noble woman, the unutterable soul-surrender of whose look has the courage of despair in it. He bids her farewell. The tailor's dummy retires. And she?—in her agony, is there no one to comfort her? They have demanded this sacrifice in the name of duty; and she has consented; ought not that to be enough to comfort her? Then other people appear, from other parts of the garden; and there is a Babel of tongues. He hears nothing; but he follows that sad face, until he could imagine that he listens to the throbbing of her aching heart.

And then, as the phantasms of the stage come and go, and fortune plays many pranks with these puppets, the piece draws near to an end. And now, as it appears, everything is reversed; and it is the poor lover who is in grievous trouble, while she is restored to the proud position of her coquetties and wilful graces again, with all her friends smiling around her, and life lying fair before her. She meets him by accident. Suffering gives him a certain sort of dignity; but how is one to retain

patience with the blindness of this insufferable ass? Don't you see, man, don't you see that she is waiting to throw herself into your arms? and you, you poor ninny, are giving yourself airs, and doing the grand heroic! And then the shy coquetry comes in again. The pathetic eyes are full of a grave compassion, if he must really never see her more. The cat plays with the poor mouse, and pretends that really the tender thing is gone away at last. He will take this half of a broken sixpence back: it was given in happier times. If ever he should marry, he will know that one far away prays for his happiness. And if—these unwomanly tears . . . and suddenly the crass idiot discovers that she is laughing at him; and that she has secured him and bound him as completely as a fly fifty times wound round by a spider. The crash of applause that accompanied the lowering of the curtain stunned Macleod, who had not quite come back from dream-land. And then, amid a confused roar, the curtain was drawn a bit back, and she was led—timidly smiling, so that her eyes seemed to take in all the theatre at once—across the stage by that same poor fool of a lover; and she had two or three bouquets thrown her, notably one from Mrs. Ross's box. Then she disappeared; and the lights were lowered; and there was a dull shuffling of people getting their cloaks and hats and going away.

"Mrs. Ross wants to see you for a minute," Ogilvie said.

"Yes," Macleod answered, absently.

"And we have time yet, if you like, to get into a hansom, and drive along to Lady Beauregard's."

CHAPTER V.

IN PARK-LANE.

THEY found Mrs. Ross and her husband waiting in the corridor above.

"Well, how did you like it?" she said.

He could not answer off-hand. He was afraid he might say too much.

"It is like her singing," he stammered at length. "I am not used to these things. I have never seen anything like that before."

"We shall soon have her in a better piece," Mrs. Ross said. "It is being written for her. That is very pretty; but slight. She is capable of greater things."

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"She is capable of anything," said Macleod, simply, "if she can make you believe that such nonsense is real. I looked at the others. What did they say or do, better than mere pictures in a book? But she—it is like magic."

"And did Mr. Ogilvie give you my message?" said Mrs. Ross. "My husband and I are going down to see a yacht race on the Thames to-morrow—we did not think of it till this evening any more than we expected to find you here. We came along to try to get Miss White to go with us. Will you join our little party?"

"Oh, yes, certainly—thank you very much," Macleod said, eagerly.

"Then you'd better meet us at Charing Cross, at ten sharp," Colonel Ross said; "so don't let Ogilvie keep you up too late with brandy and soda. A special will take us down."

"Brandy and soda!" Mr. Ogilvie exclaimed. "I am going to take him along for a few minutes to Lady Beauregard's—surely that is proper enough; and I have to get down by the 'cold-meat' train to Aldershot, so there won't be much brandy and soda for me. Shall we go now, Mrs. Ross?"

"I am waiting for an answer," Mrs. Ross said, looking along the corridor.

Was it possible, then, that she herself should bring the answer to this message that had been sent her—stepping out of the dream-world in which she had disappeared with her lover? And how would she look as she came along this narrow passage? Like the arch coquette of this land of gas-light and glowing colors? or like the pale, serious, proud girl who was fond of sketching the elm at Prince's Gate? A strange nervousness possessed him as he thought she might suddenly appear. He did not listen to the talk between Colonel Ross and Mr. Ogilvie. He did not notice that this small party was obviously regarded as being in the way by the attendants who were putting out the lights and shutting the doors of the boxes. Then a man came along.

"Miss White's compliments, ma'am; and she will be very pleased to meet you at Charing Cross at ten to-morrow."

"And Miss White is a very brave young lady to attempt anything of the kind," observed Mr. Ogilvie, confidentially, as they all went down the stairs. "For if the

yachts should get becalmed off the Nore, or off the Mouse, I wonder how Miss White will get back to London in time?"

"Oh, we shall take care of that," said Colonel Ross. "Unless there is a good steady breeze we shan't go at all; we shall spend a happy day at Rosherville; or have a look at the pictures at Greenwich. We shan't get Miss White into trouble. Good-bye, Ogilvie. Good-bye, Sir Keith. Remember—ten o'clock, Charing Cross."

They stepped into their carriage and drove off.

"Now," said Macleod's companion, "are you tired?"

"Tired? I have done nothing all day."

"Shall we get into a hansom and drive along to Lady Beauregard's?"

"Certainly, if you like. I suppose they won't throw you over again?"

"Oh, no," said Mr. Ogilvie, as he once more adventured his person in a cab. "And I can tell you it is much better—if you look at the thing philosophically, as poor wretches like you and me must—to drive to a crush in a hansom than in your own carriage. You don't worry about your horses being kept out in the rain; you can come away at any moment; there is no fussing with servants, and rows because your man has got out of the rank—
—HOLD UP!"

Whether it was the yell or not, the horse recovered from the slight stumble; and no harm befell the two daring travellers.

"These vehicles give one some excitement," Macleod said—or rather roared, for Piccadilly was full of carriages. "A squall in Loch Scridain is nothing to them."

"You'll get used to them in time," was the complacent answer.

They dismissed the hansom at the corner of Piccadilly, and walked up Park Lane, so as to avoid waiting in the rank of carriages. Macleod accompanied his companion meekly. All this scene around him—the flashing lights of the broughams—the brilliant windows—the stepping across the pavement of a strangely-dressed dignitary from some foreign land—seemed but some other part of that dream from which he had not quite shaken himself free. His head was still full of the sorrows and coquetries of that wild-spirited

heroine. Whither had she gone by this time—away into some strange valley of that unknown world?

He was better able than Mr. Ogilvie to push his way through the crowd of footmen who stood in two lines across the pavement in front of Beauregard House, watching for the first appearance of their master or mistress; but he resignedly followed and found himself in the avenue leading clear up to the steps. They were not the only arrivals, late as the hour was. Two young girls, sisters, clad in cream-white silk with a gold fringe across their shoulders and sleeves, preceded them; and he was greatly pleased by the manner in which these young ladies, on meeting in the great hall an elderly lady who was presumably a person of some distinction, dropped a pretty little old-fashioned curtsy as they shook hands with her. He admired much less the more formal obeisance which he noticed a second after. A Royal personage was leaving; and as this lady, who was dressed in mourning, and was leaning on the arm of a gentleman whose coat was blazing with diamond stars, and whose breast was barred across with a broad blue ribbon, came along the spacious landing at the foot of the wide staircase, she graciously extended her hand and said a few words to such of the ladies standing by as she knew. That deep bending of the knee he considered to be less pretty than the little curtsy performed by the young ladies in cream-white silk. He intended to mention this matter to his cousin Janet.

Then, as soon as the Princess had left, the lane through which she had passed closed up again, and the crowd became a confused mass of murmuring groups. Still meekly following, Macleod plunged into this throng; and presently found himself being introduced to Lady Beauregard, an amiable little woman who had been a great beauty in her time and was pleasant enough to look at now. He passed on.

"Who is the man with the blue ribbon and the diamond stars?" he asked of Mr. Ogilvie.

"That is Monsieur le Marquis himself—that is your host," the young gentleman replied—only Macleod could not tell why he was obviously trying to repress some covert merriment.

"Didn't you hear?" Mr. Ogilvie said at length. "Don't you know what he

called you? That man will be the death of me—for he's always at it. He announced you as Sir Thief Macleod—I will swear he did."

"I should not have thought he had so much historical knowledge," Macleod answered gravely. "He must have been reading up about the clans."

At this moment, Lady Beauregard, who had been receiving some other late visitors, came up and said she wished to introduce him to— he could not make out the name. He followed her. He was introduced to a stout elderly lady, who still had beautifully fine features, and a simple and calm air which rather impressed him. It is true that at first a thrill of compassion went through him; for he thought that some accident had befallen the poor lady's costume, and that it had fallen down a bit unknown to herself; but he soon perceived that most of the other women were dressed similarly, some of the younger ones, indeed, having the back of their dress open practically to the waist. He wondered what his mother and Janet would say to this style.

"Don't you think the Princess is looking pale?" he was asked.

"I thought she looked very pretty—I never saw her before," said he.

What next? That calm air was a trifle cold and distant. He did not know who the woman was; or where she lived; or whether her husband had any shooting, or a yacht, or a pack of hounds. What was he to say? He returned to the Princess.

"I only saw her as she was leaving," said he. "We came late. We were at the Piccadilly Theatre."

"Oh, you saw Miss Gertrude White?" said this stout lady; and he was glad to see her eyes light up with some interest. "She is very clever, is she not?—and so pretty and engaging. I wish I knew some one who knew her."

"I know some friends of hers," Macleod said, rather timidly.

"Oh, do you really? Do you think she would give me a morning performance for my Fund?"

This lady seemed to take it so much for granted that every one must have heard of her Fund that he dared not confess his ignorance. But it was surely some charitable thing; and how could he doubt

that Miss White would immediately respond to such an appeal?

"I should think that she would," said he, with a little hesitation—but at this moment some other claimant came forward, and he turned away to seek young Ogilvie once more.

"Ogilvie," said he, "who is that lady in the green satin?"

"The Duchess of Wexford."

"Has she a Fund?"

"A what?"

"A Fund—a charitable Fund of some sort."

"Oh, let me see. I think she is getting up money for a new training-ship—turning the young ragamuffins about the streets into sailors, don't you know?"

"Do you think Miss White would give a morning performance for that Fund?"

"Miss White! Miss White! Miss White!" said Lieutenant Ogilvie. "I think Miss White has got into your head."

"But that lady asked me."

"Well, I should say it was exactly the thing that Miss White would like to do—get mixed up with a whole string of Duchesses and Marchionesses—a capital advertisement—and it would be all the more distinguished if it was an amateur performance, and Miss Gertrude White the only professional admitted into the charmed circle."

"You are a very shrewd boy, Ogilvie," Macleod observed. "I don't know how you ever got so much wisdom into so small a head."

And indeed, as Lieutenant Ogilvie was returning to Aldershot by what he was pleased to call the cold-meat train, he continued to play the part of Mentor for a time with great assiduity, until Macleod was fairly confused with the number of persons to whom he was introduced and the remarks his friend made about them. What struck him most, perhaps, was the recurrence of old Highland or Scotch family names, borne by persons who were thoroughly English in their speech and ways. Fancy a Gordon who said "loch" for "loch"; a Mackenzie who had never seen the Lewis; a Mac Alpine who had never heard the proverb "The hills, the Mac Alpines, and the devil came into the world at the same time."

It was a pretty scene; and he was young, and eager, and curious; and he

enjoyed it. After standing about for half-an-hour or so, he got into a corner from which, in quiet, he could better see the brilliant picture as a whole—the bright, harmonious dresses, the glimpses of beautiful eyes and blooming complexions, the masses of foxgloves which Lady Beauregard had as the only floral decoration of the evening, the pale canary-colored panels and silver fluted columns of the walls, and over all the various candelabra, each bearing a cluster of sparkling and golden stars. But there was something wanting. Was it the noble and silver-haired lady of Castle Dare whom he looked for in vain in that brilliant crowd that moved and murmured before him? Or was it the friendly and familiar face of his cousin Janet, whose eyes, he knew, would be filled with a constant wonder if she saw such diamonds and silks and satins? Or was it that *ignis fatuus*—that treacherous and mocking fire—that might at any time glimmer in some suddenly presented face with a new surprise? Had she deceived him altogether down at Prince's Gate? Was her real nature that of the wayward, bright, mischievous, spoiled child whose very tenderness only prepared her unsuspecting victim for a merciless thrust? And yet the sound of her sobbing was still in his ears. A true woman's heart beat beneath that idle raillery; challenged boldly, would it not answer loyally and without fear?

Psychological puzzles were new to this son of the mountains; and it is no wonder that, long after he had bidden good-bye to his friend Ogilvie, and as he sat thinking alone in his own room, with Oscar lying across the rug at his feet, his mind refused to be quieted. One picture after another presented itself to his imagination—the proud-souled enthusiast longing for the wild winter nights and the dark Atlantic seas—the pensive maiden, shuddering to hear the fierce story of Maclean of Lochbuy—the spoiled child, teasing her mamma and petting her canary—the wronged and weeping woman, her frame shaken with sobs, her hands clasped in despair—the artful and demure coquette, mocking her lover with her sentimental farewells. Which of them all was she? Which should he see in the morning? Or would she appear as some still more elusive vision, retreating before him as he advanced?

Had he asked himself, he would have said that these speculations were but the fruit of a natural curiosity. Why should he not be interested in finding out the real nature of this girl, whose acquaintance he had just made? It has been observed, however, that young gentlemen do not always betray this frantic devotion to psychological inquiry when the subject of it, instead of being a fascinating maiden of twenty, is a homely-featured lady of fifty.

Time passed; another cigar was lit; the blue light outside was becoming silvery; and yet the problem remained unsolved. A fire of impatience and restlessness was burning in his heart; a din as of brazen instruments—what was the air the furious orchestra played?—was in his ears; sleep or rest was out of the question.

"Oscar!" he called. "Oscar, my lad, let us go out."

When he stealthily went down-stairs, and opened the door, and passed into the street, behold! the new day was shining abroad—and how cold, and still, and silent it was after the hot glare and the whirl of that bewildering night! No living thing was visible. A fresh, sweet air stirred the leaves of the trees and bushes in St. James's Square. There was a pale lemon-yellow glow in the sky, and the long empty thoroughfare of Pall Mall seemed coldly white.

Was this a somnambulist, then, who wandered idly along through the silent streets, apparently seeing nothing of the closed doors, and the shuttered windows on either hand? A policeman, standing at the corner of Waterloo Place, stared at the apparition—at the twin apparition; for this tall young gentleman with the light top-coat thrown over his evening dress was accompanied by a beautiful collie that kept close to his heels. There was a solitary four-wheeled cab at the foot of the Haymarket; but the man had got inside and was doubtless asleep. The Embankment?—with the young trees stirring in the still morning air; and the broad bosom of the river catching the gathering glow of the skies. He leaned on the grey stone parapet, and looked out on the placid waters of the stream.

Placid indeed they were as they went flowing quietly by; and the young day promised to be bright enough; and why

should there be aught but peace and goodwill upon earth towards all men and women? Surely there was no call for any unrest, or fear, or foreboding? The still and shining morning was but emblematic of his life—if only he knew, and were content. And indeed he looked contented enough, as he wandered on, breathing the cool freshness of the air, and with a warmer light from the east now touching from time to time his sun-tanned face. He went up to Covent Garden—for mere curiosity's sake. He walked along Piccadilly, and thought the elms in the Green Park looked more beautiful than ever. When he returned to his rooms, he was of opinion that it was scarcely worth while to go to bed; and so he changed his clothes, and called for breakfast as soon as some one was up. In a short time—after his newspaper had been read—he would have to go down to Charing Cross.

What of this morning walk? Perhaps it was unimportant enough. Only, in after times, he once or twice thought of it; and very clearly, indeed, he could see himself standing there in the early light, looking out on the shining waters of the river. They say that when you see yourself too vividly—when you imagine that you yourself are standing before yourself—that is one of the signs of madness.

CHAPTER VI.

A SUMMER-DAY ON THE THAMES.

It occurred to him as he walked down to the station—perhaps he went early on the chance of finding her there alone—that he ought seriously to study the features of this girl's face; for was there not a great deal of character to be learned, or guessed at, that way? He had but the vaguest notion of what she was really like. He knew that her teeth were pearly white when she smiled, and that the rippling golden-brown hair lay rather low on a calm and thoughtful forehead; but he had a less distinct impression that her nose was perhaps the least thing *retroussée*; and as to her eyes? They might be blue, grey or green: but one thing he was sure of was that they could speak more than was ever uttered by any speech. He knew besides that she had an exquisite figure: perhaps it was the fact that her shoulders were a trifle squarer

than is common with women that made her look somewhat taller than she really was.

He would confirm or correct these vague impressions. And as the chances were that they would spend a whole long day together, he would have abundant opportunity of getting to know something about the character and disposition of this new acquaintance, so that she should no longer be to him a puzzling and distracting will-o'-the-wisp. What had he come to London for but to improve his knowledge of men and of women, and to see what was going on in the larger world? And so this earnest student walked down to the station.

There were a good many people about, mostly in groups chatting with each other; but he recognised no one. Perhaps he was looking out for Colonel and Mrs. Ross; perhaps for a slender figure in black, with blue beads; at all events he was gazing somewhat vacantly around, when some one turned close by him. Then his heart stood still for a second. The sudden light that sprang to her face when she recognised him blinded him. Was it to be always so? Was she always to come upon him in a flash, as it were? What chance had the poor student of fulfilling his patient task when, on his approach, he was sure to be met by this surprise of the parted lips, and sudden smile, and bright look? He was far too bewildered to examine the outline of her nose or the curve of the exquisitely short upper lip.

But the plain truth was that there was no extravagant joy at all in Miss White's face; but a very slight and perhaps pleased surprise; and she was not in the least embarrassed.

"Are you looking for Mrs. Ross," said she, "like myself?"

"Yes," said he; and then he found himself exceedingly anxious to say a great deal to her, without knowing where to begin. She had surprised him too much—as usual. She was so different from what he had been dreaming about. Here was no one of the imaginary creatures that had risen before his mind during the stillness of the night. Even the pale dreamer in black and blue beads was gone. He found before him (as far as he could make out) a quiet, bright-faced, self-possessed girl, clad in a light and

cool costume of white—with bits of black velvet about it—and her white gloves and sunshade and the white silver chain round her slender waist were important features in the picture she presented. How could this eager student of character get rid of these distressing trivialities? All night long he had been dreaming of beautiful sentiments and conflicting emotions: now his first thought was that he had never seen any costume so delightfully cool and clear and summer-like. To look at her was to think of a mountain-spring, icy-cold even in the sunshine.

"I always come early," said she, in the most matter-of-fact way. "I cannot bear hurry in catching a train."

Of course not. How could any one associate rattling cabs, and excited porters, and frantic mobs, with this serene creature, who seemed to have been wafted to Charing Cross on a cloud? And if he had had his will, there would have been no special train to disturb her repose. She would have embarked in a noble barge, and lain upon couches of swan's down, and ample awnings of silk would have sheltered her from the sun, while the beautiful craft floated away down the river, its crimson hangings here and there just touching the rippling waters.

"Ought we to take tickets?"

That was what she actually said; but what those eloquent, innocent eyes seemed to say was, "*Can you read what we have to tell you? Don't you know what a simple and confiding soul appeals to you?—clear as the daylight in its truth. Cannot you look through us and see the trusting, tender soul within?*"

"Perhaps we had better wait for Colonel Ross," said he; and there was a little pronoun in this sentence that he would like to have repeated. It was a friendly word. It established a sort of secret companionship. It is the proud privilege of a man to know all about railway-tickets; but he rather preferred this association with her helpless innocence and ignorance.

"I had no idea you were coming to-day. I rather like those surprise-parties. Mrs. Ross never thought of going till last evening, she says. Oh! by the way, I saw you in the theatre last evening."

He almost started. He had quite forgotten that this self-possessed, clear-eyed,

pale girl was the madcap coquette whose caprices and griefs had alternately fascinated and moved him on the previous evening.

"Oh, indeed," he stammered. "It was a great pleasure to me—and a surprise. Lieutenant Ogilvie played a trick on me. He did not tell me before we went that—that you were to appear"——

She looked amused.

"You did not know, then, when we met at Mrs. Ross's, that I was engaged at the Piccadilly Theatre?"

"Not in the least," he said, earnestly; as if he wished her distinctly to understand that he could not have imagined such a thing to be possible.

"You should have let me send you a box. We have another piece in rehearsal. Perhaps you will come to see that?"

Now if these few sentences, uttered by those two young people in the noisy railway station, be taken by themselves and regarded, they will be found to consist of the dullest commonplace. No two strangers in all that crowd could have addressed each other in a more indifferent fashion. But the trivial nothings which the mouth utters may become possessed of awful import, when accompanied by the language of the eyes; and the poor commonplace sentences may be taken up and translated, so that they shall stand written across the memory, in letters of flashing sunlight and the colors of June. "*Ought we to take tickets?*" There was not much poetry in the phrase; but she lifted her eyes just then.

And now Colonel Ross and his wife appeared, accompanied by the only other friend they could get at such short notice to join this scratch party—a demure little old lady who had a very large house on Campden Hill which everybody coveted. They were just in time to get comfortably seated in the spacious saloon-carriage that had been reserved for them. The train slowly glided out of the station; and then began to rattle away from the mist of London. Glimpses of a keener blue began to appear. The gardens were green with the foliage of the early summer; martens swept across the still pools, a spot of white when they got into the shadow. And Miss White would have as many windows open as possible, so that the sweet June air swept right through the long carriage.

And was she not a very child in her enjoyment of this sudden escape into the country? The rapid motion—the silvery light—the sweet air—the glimpses of orchards, and farm houses, and mill-streams—all were a delight to her; and although she talked in a delicate, half-reserved, shy way with that low voice of hers, still there was plenty of vivacity and gladness in her eyes. They drove from Gravesend station to the river-side. They passed through the crowd waiting to see the yachts start. They got on board the steamer; and at the very instant that Macleod stepped from the gangway on to the deck the military band on board—by some strange coincidence—struck up “A Highland lad my love was born.” Mrs. Ross laughed; and wondered whether the bandmaster had recognised her husband.

And now they turned to the river; and there were the narrow and shapely cutters, with their tall spars, and their pennons fluttering in the sunlight. They lay in two tiers across the river, four in each tier, the first row consisting of small forty-tonners, the more stately craft behind. A brisk northeasterly wind was blowing, causing the bosom of the river to flash in ripples of light. Boats of every size and shape moved up and down and across the stream. The sudden firing of a gun caused some movement among the red-capped mariners of the four yachts in front.

“They are standing by the main halyards,” said Colonel Ross, to his women-folk. “Now watch for the next signal.”

Another gun was fired; and all of a sudden there was a rattling of blocks and chains; and the four mainsails slowly rose; and the flapping jibs were run up. The bows drifted round: which would get way on her first? But now there was a wild uproar of voices. The boom-end of one of the yachts had caught one of the stays of her companion; and both were brought up head to wind. Cutter No. III. took advantage of the mishap to sail through the lee of both her enemies, and got clear away, with the sunlight shining full on her bellying canvas. But there was no time to watch the further adventures of the forty-tonners. Here and closer at hand were the larger craft; and high up in the rigging were the mites of men, ready to drop into the air, clinging on to the halyards. The gun is fired. Down they come, swinging in the air; and

the moment they have reached the deck they are off and up the ratlines again, again to drop into the air until the throat is high hoisted, the peak swinging this way and that, and the grey folds of the mainsail lazily flapping in the wind. The steamer begins to roar. The yachts fall away from their moorings; and one by one the sails fill out to the fresh breeze. And now all is silence and an easy gliding motion; for the eight competitors have all started away, and the steamer is smoothly following them.

“How beautiful they are—like splendid swans!” Miss White said: she had a glass in her hand but did not use it, for as yet the stately fleet was near enough.

“A swan has a body,” said Macleod. “These things seem to me to be nothing but wings. It is all canvas, and no hull.”

And indeed, when the large topsails and big jibs came to be set, it certainly appeared as if there was nothing below to steady this vast extent of canvas. Macleod was astonished. He could not believe that people were so reckless as to go out in boats like that.

“If they were up in our part of the world,” said he, “a puff of wind from the Gribun cliffs would send the whole fleet to the bottom.”

“They know better than to try, at least with their present rig,” Colonel Ross said. “Those yachts are admirably suited for the Thames; and Thames yachting is a very nice thing. It is very close to London. You can take a day’s fresh air when you like, without going all the way to Cowes. You can get back to town in time to dine.”

“I hope so,” said Miss White with emphasis.

“Oh, you need not be afraid,” her host said, laughing. “They only go round the Nore; and with this steady breeze they ought to be back early in the afternoon. My dear Miss White we shan’t allow you to disappoint the British public.”

“So I may abandon myself to complete idleness without concern?”

“Most certainly.”

And it was an enjoyable sort of idleness. The river was full of life and animation as they glided along; fitful shadows and bursts of sunshine crossed the foliage and pasturelands of the flat shores; the yellow surface of the stream was broken with gleams of silver; and always, when, this

somewhat tame and peaceful and pretty landscape tended to become monotonous, they had on this side or that the spectacle of one of those tall and beautiful yachts rounding on a new tack or creeping steadily up on one of her opponents. They had a sweepstakes of course; and Macleod drew the favorite. But then he proceeded to explain to Miss White that the handicapping by means of time allowances made the choice of a favorite a mere matter of guess-work; that the fouling at the start was of but little moment; and that on the whole she ought to exchange yachts with him.

"But if the chances are all equal, why should your yacht be better than mine?" said she.

The argument was unanswerable; but she took the favorite for all that, because he wished her to do so; and she tendered him in return the bit of folded paper with the name of a rival yacht on it. It had been in her purse for a minute or two. It was scented when she handed it to him.

"I should like to go to the Mediterranean in one of those beautiful yachts," she said, looking away across the troubled waters; "and lie and dream under the blue skies. I should want no other occupation than that: that would be real idleness. With a breath of wind now and then to temper the heat; and an awning over the deck; and a lot of books. Life would go by like a dream."

Her eyes were distant and pensive. To fold the bits of paper, she had taken off her gloves: he regarded the small white hands, with the blue veins, and the pink almond-shaped nails. She was right. That was the proper sort of existence for one so fine and pale, and perfect even to the finger-tips. *Rose-leaf—Rose-leaf—what faint wind will carry you away to the south?*

At this moment the band struck up a lively air. What was it?

"O this is no my ain lassie,
Fair though the lassie be!"

"You are in great favor to-day, Hugh," Mrs. Ross said to her husband. "You will have to ask the bandmaster to lunch with us."

But this sharp alternative of a well-known air had sent Macleod's thoughts flying away northward, to scenes far different from these flat shores, and to a sort

of boating very different from this summer sailing. Janet, too: what was she thinking of—far away in Castle Dare? Of the wild morning on which she insisted on crossing to one of the Treshnish islands, because of the sick child of a shepherd there; and of the open herring-smack, and she sitting on the ballast-stones; and of the fierce gale of wind and rain that hid the island from their sight; and of her landing, drenched to the skin, and with the salt water running from her hair and down her face?

"Now for lunch," said Colonel Ross; and they went below.

The bright little saloon was decorated with flowers; the colored glass on the table looked pretty enough; here was a pleasant break in the monotony of the day. It was an occasion, too, for assiduous helpfulness, and gentle inquiries, and patient attention. They forgot about the various chances of the yachts. They could not at once have remembered the name of the favorite. And there was a good deal of laughter and pleasant chatting, while the band overhead—heard through the open skylight—still played—

"O this is no my ain lassie,
Kind though the lassie be!"

And behold! when they went up on deck again, they had got ahead of all the yachts, and were past the forts at the mouth of the Medway, and were out on an open space of yellowish-green water that showed where the tide of the sea met the current of the river. And away down there in the south a long spur of land ran out at the horizon; and the sea immediately under was still and glassy, so that the neck of land seemed projected into the sky—a sort of gigantic razor-fish suspended in the silvery clouds. Then, to give the yachts time to overtake them, they steamed over to a mighty iron-clad that lay at anchor there; and as they came near her vast black bulk they lowered their flag, and the band played "Rule Britannia!" The salute was returned; the officer on the high quarter-deck raised his cap; they steamed on.

In due course of time they reached the Nore light-ship; and there they lay and drifted about until the yachts should come up. Long distances now separated that summer fleet; but as they came along, lying well over before the brisk breeze, it

was obvious that the spaces of time between the combatants would not be great. And is not this Miss White's vessel, the favorite in the betting, that comes sheering through the water, with white foam at her bows? Surely she is more than her time-allowance ahead? And on this tack will she get clear round the squat little light-ship; or is there not a danger of her carrying off a bowsprit? With what an ease and majesty she comes along! scarcely dipping to the slight summer waves; while they on board notice that she has put out her long spinnaker boom, ready to hoist a great ballooner as soon as she is round the light-ship and running home before the wind. The speed at which she cuts the water is now visible enough as she obscures for a second or so the hull of the light-ship. In another second she has sheered round; and then the great spinnaker bulges out with the breeze; and away she goes up the river again. Chronometers are in request. It is only a matter of fifty seconds that her nearest rival, now coming sweeping along, has to make up. But what is this that happens just as the enemy has got round the Nore? There is a cry of "Man overboard!" The spinnaker boom has caught the careless skipper, and pitched him clean into the plashing waters, where he floats about; not as yet certain, probably, what course his vessel will take. She at once brings her head up to wind, and puts about; but meanwhile a small boat from the light-ship has picked up the unhappy skipper, and is now pulling hard to strike the course of the yacht on her new tack. In another minute or two he is on board again; and away she goes for home.

"I think you have won the sweepstakes, Miss White," Macleod said. "Your enemy has lost eight minutes."

She was not thinking of sweepstakes. She seemed to have been greatly frightened by the accident.

"It would have been so dreadful to see a man drowned before your eyes—in the midst of a mere holiday excursion."

"Drowned?" he cried. "There? If a sailor lets himself get drowned in this water with all these boats about, he deserves it."

"But there are many sailors who cannot swim at all."

"More shame for them," said he.

"Why, Sir Keith," said Mrs. Ross,

laughing, "do you think that all people have been brought up to an amphibious life like yourself? I suppose in your country, what with the rain and the mist, you seldom know whether you are on sea or shore?"

"That is quite true," said he gravely. "And the children are all born with fins. And we can hear the mermaids singing all day long. And when we want to go any where we get on the back of a dolphin."

But he looked at Gertrude White. What would she say about that far land that she had shown such a deep interest in? There was no raillery at all in her low voice, as she spoke.

"I can very well understand," she said, "how the people there fancied they heard the mermaids singing—amidst so much mystery—and with the awfulness of the sea around them."

"But we have had living singers," said Macleod, "and that amongst the Macleods, too. The most famous of all the song-writers of the Western Highlands was Mary Macleod, that was born in Harris—Mairi nighean Alasdair Ruaidh, they called her—that is, Mary the daughter of Red Alister. Macleod of Dunvegan, he wished her not to make any more songs: but she could not cease the making of songs. And there was another Macleod—Fionaghal they called her—that is the Fair Stranger. I do not know why they called her the Fair Stranger—perhaps she came to the Highlands from some distant place. And I think if you were going amongst the people there at this very day, they would call you the Fair Stranger."

He spoke quite naturally and thoughtlessly; his eyes met hers only for a second; he did not notice the soft touch of pink that suffused the delicately tinted cheek.

"What did you say was the name of that mysterious stranger?" asked Mrs. Ross; "that poetess from unknown lands?"

"Fionaghal," he answered.

She turned to her husband.

"Hugh," she said, "let me introduce you to our mysterious guest. This is Fionaghal—this is the Fair Stranger from the Islands—this is the poetess whose melodies the mermaids have picked up. If she only had a harp, now—with seaweed hanging from it—and an oval mirror"—

The booming of a gun told them that the last yacht had rounded the light-ship; the band struck up a lively air; and presently the steamer was steaming off in the wake of the procession of yachts. There was now no more fear that Miss White should be late. The breeze had kept up well, and had now shifted a point to the east; so that the yachts, with their great ballooners, were running pretty well before the wind. The lazy abandonment of the day became more complete than ever. Careless talk and laughter; an easy curiosity about the fortunes of the race; tea in the saloon, with the making up of two bouquets of white roses, sweet-peas, fuchsias, and ferns; the day passed lightly and swiftly enough. It was a summer day; full of pretty trifles. Macleod, surrendering to the fascination, began to wonder what life would be if it were all a show of June colors and a sound of dreamy music: for one thing he could not imagine this sensitive, beautiful, pale, fine creature otherwise than as surrounded by an atmosphere of delicate attentions and pretty speeches, and sweet low laughter.

They got into their special train again at Gravesend, and were whirled up to London. At Charing Cross he bade goodbye to Miss White, who was driven off by Mr. and Mrs. Ross along with their other guest. In the light of the clear June evening he walked rather absently up to his rooms.

There was a letter lying on the table. He seized it and opened it with gladness. It was from his cousin Janet—and the mere sight of it seemed to revive him like a gust of keen wind from the sea. What had she to say? About the grumblings of Donald, who seemed to have no more pride in his pipes now the master was gone? About the anxiety of his mother over the reports of the keepers? About the upsetting of a dog-cart on the road to Loch Buy? He had half resolved to go to the theatre again that evening—getting, if possible, into some corner where he might pursue his profound psychological investigations unseen—but now he thought he would not go. He would spend the evening in writing a long letter to his cousin, telling her and the mother about all the beautiful, fine, gay, summer life he had seen in London—so different from any thing they could have seen in Fort William, or Inverness, or even in Edinburgh.

After dinner he sat down to this agreeable task. What had he to write about except brilliant rooms, and beautiful flowers, and costumes such as would have made Janet's eyes wide: of all the delicate luxuries of life, and happy idleness, and the careless enjoyment of people whose only thought was about a new pleasure? He gave a minute description of all the places he had been to see—except the theatre. He mentioned the names of the people who had been kind to him; but he said nothing about Gertrude White.

Not that she was altogether absent from his thoughts. Sometimes his fancy fled away from the sheet of paper before him, and saw strange things. Was this Fionagh, the Fair Stranger,—this maiden who had come over the seas to the dark shores of the isles—this king's daughter clad in white, with her yellow hair down to her waist, and bands of gold on her wrists? And what does she sing to the lashing waves but songs of high courage, and triumph, and welcome to her brave lover coming home with plunder through the battling seas? Her lips are parted with her singing, but her glance is bold and keen: she has the spirit of a king's daughter, let her come from whence she may.

Or is Fionagh, the Fair Stranger, this poorly-drest lass, who boils the potatoes over the rude peat-fire—and croons her songs of suffering and of the cruel drowning in the seas—so that from hut to hut they carry her songs, and the old wives' tears start afresh to think of their brave sons lost years and years ago?

Neither Fionagh is she—this beautiful, pale woman, with her sweet, modern English speech, and her delicate, sensitive ways, and her hand that might be crushed like a rose-leaf. There is a shimmer of summer around her; flowers lie in her lap; tender observances encompass and shelter her. Not for her the biting winds of the northern seas; but rather the soft luxurious idleness of placid waters, and blue skies, and shadowy shores. . . . *Rose-leaf—Rose-leaf—what faint wind will carry you away to the south?*

CHAPTER VII.

THE DUCHESS OF DEVONSHIRE.

LATE one night a carefully-dressed elderly gentleman applied his latch-key to the door of a house in Bury-street, St.

James's, and was about to enter without any great circumspection, when he was suddenly met by a white phantom, which threw him off his legs, and dashed outwards into the street. The language that the elderly gentleman used, as he picked himself up, need not be repeated here. Suffice it to say that the white phantom was the dog Oscar, who had been shut in a minute before by his master, and who now, after one or two preliminary dashes up and down the street, very soon perceived the tall figure of Macleod, and made joyfully after him. But Oscar knew that he had acted wrongly; and was ashamed to show himself; so he quietly slunk along at his master's heels. The consequence of this was that the few loiterers about beheld the very unusual spectacle of a tall young gentleman walking down Bury-street and into King-street, dressed in full Highland costume and followed by a white and lemon collie. No other person going to the Caledonian fancy-dress ball was so attended.

Macleod made his way through the carriages, crossed the pavement and entered the passage. Then he heard some scuffling behind; and he turned.

"Let alone my dog, you fellow!" said he, making a step forward; for the man had got hold of Oscar by the head, and was hauling him out.

"Is it your dog, sir?" said he.

Oscar himself answered by wrestling himself free, and taking refuge by his master's legs, though he still looked guilty.

"Yes, he is my dog; and a nice fix he has got me into," said Macleod, standing aside to let the Empress Maria Theresa pass by in her resplendent costume. "I suppose I must walk home with him again. Oscar, Oscar! how dare you?"

"If you please, sir," said a juvenile voice behind him, "If Mr. — will let me, I will take the dog. I know where to tie him up."

Macleod turned.

"*Cò an so?*" said he, looking down at the chubby-faced boy in the kilts, who had his pipes under his arm. "Don't you know the Gaelic?"

"I am only learning," said the young musician. "Will I take the dog, sir?"

"March along, then, *phiobaire bhig!*" Macleod said. "He will follow me, if he will not follow you."

Little Piper turned aside into a large

hall which had been transformed into a sort of waiting-room; and here Macleod found himself in the presence of a considerable number of children, half of them girls, half of them boys, all dressed in tartan, and seated on the forms along the walls. The children, who were half asleep at this time of the night, woke up with sudden interest at sight of the beautiful collie; and at the same moment Little Piper explained to the gentleman who was in charge of these young ones that the dog had to be tied up somewhere, and that a small adjoining room would answer that purpose. The proposal was most courteously entertained. Macleod, Mr. —, and Little Piper walked along to this side room, and there Oscar was properly secured.

"And I will get him some water, sir, if he wants it," said the boy in the kilts.

"Very well," Macleod said. "And I will give you my thanks for it; for that is all that a Highlander, and especially a piper, expects for a kindness. And I hope you will learn the Gaelic soon, my boy. And do you know *Cumhadh na Cloinne*? No, it is too difficult for you; but I think if I had the chanter between my fingers myself, I could let you hear *Cumhadh na Cloinne*."

"I am sure John Maclean can play it," said the small piper.

"Who is he?"

The gentleman in charge of the youngsters explained that John Maclean was the eldest of the juvenile pipers, five others of whom were in attendance.

"I think," said Macleod, "that I am coming down in a little time to make the acquaintance of your young pipers, if you will let me."

He passed up the broad staircase, and into the empty supper-room, from which a number of entrances showed him the strange scene being enacted in the larger hall. Who were these people who were moving to the sound of rapid music? A clown in a silken dress of many colors, with bells to his cap and wrists, stood at one of the doors; Macleod became his fellow-spectator of what was going forward. A beautiful Tyrolienne, in a dress of black silver and velvet, with her yellow hair hanging in two plaits down her back, passed into the room accompanied by Charles the First in a large wig and cloak; and the next moment they were

whirling along in the waltz, coming into innumerable collisions with all the celebrated folk who ever lived in history. And who were these gentlemen in the scarlet collars and cuffs, who but for these adornments would have been in ordinary evening dress? He made bold to ask the friendly clown, who was staring in a pensive manner at the rushing couples.

"They call it the Windsor uniform," said the clown. "I think it mean. I shan't come in a fancy dress again, if stitching on a red collar will do."

At this moment the waltz came to an end; and the people began to walk up and down the spacious apartment. Macleod entered the throng, to look about him. And soon he perceived, in one of the little stands at the side of the hall, the noble lady who had asked him to go to this assembly, and forthwith he made his way through the crowd to her. He was most graciously received.

"Shall I tell you a secret, Lady ——?" said he. "You know the children belonging to the charity—they are all below—and they are sitting doing nothing, and they are all very tired and half-asleep. It is a shame to keep them there"——

"But the Prince hasn't come yet; and they must be marched round: they show that we are not making fools of ourselves for nothing."

A sharper person than Macleod might have got in a pretty compliment here; for this lady was charmingly dressed as Flora Macdonald; but he merely said—

"Very well; perhaps it is necessary. But I think I can get them some amusement, if you will only keep the director of them, that is Mr. ——, out of the way. Now shall I send him to you? Will you talk to him?"

"What do you mean to do?"

"I want to give them a dance. Why should you have all the dancing up here?"

"Mind, I am not responsible. What shall I talk to him about?"

Macleod considered for a moment.

"Tell him that I will take the whole of the girls and boys to the Crystal Palace for a day, if it is permissible; and ask him what it will cost, and all about the arrangements."

"Seriously?"

"Yes. Why not? They can have a fine run in the grounds; and six pipers to

play for them. I will ask them now whether they will go."

He left and went down-stairs. He had seen but few people in the hall above whom he knew. He was not fond of dancing, though he knew the elaborate variations of the reel. And here was a bit of practical amusement.

"Oh, Mr. ——," said he, with great seriousness, "I am desired by Lady —— to say that she would like to see you for a moment or two. She wishes to ask you some questions about your young people."

"The Prince may come at any moment," said Mr. ——, doubtfully.

"He won't be in such a hurry as all that, surely!"

So the worthy man went up-stairs; and the moment he was gone Macleod shut the door.

"Now, you piper boys!" he called aloud, "get up, and play us a reel. We are going to have a dance. You are all asleep, I believe. Come, girls, stand up—you that know the reel, you will keep to this end. Boys, come out. You that can dance a reel, come to this end; the others will soon pick it up. Now, piper boys, have you got the steam up? What can you give us now? *Monymusk*? or the *Marquis of Huntley's Fling*? or *Miss Johnston*? Nay, stay a bit—don't you know *Mrs. Macleod of Raasay*?"

"Yes—yes—yes—yes—yes—yes!" came from the six pipers all standing in a row, with the drones over their shoulders and the chanters in their fingers.

"Very well, then—off you go! Now, boys and girls, are you all ready? Pipers, *Mrs. Macleod of Raasay*!"

For a second there was a confused roaring on the long drones; then the shrill chanters broke clear away into the wild reel; and presently the boys and girls, who were at first laughingly shy and embarrassed, began to make such imitations of the reel-figure, which they had seen often enough, as led to a vast amount of scrambling and jollity, if it was not particularly accurate. The most timid of the young ones soon picked up courage. Here and there one of the older boys gave a whoop that would have done justice to a wedding-dance in a Highland barn.

"Put your lungs into it, pipers!" Mac-

leod cried. "Well played, boys! You are fit to play before a prince!"

The round cheeks of the boys were red with their blowing; they tapped their toes on the ground as proudly as if every one of them was a MacCruimin; the wild noise in this big empty hall grew more furious than ever—when suddenly there was an awful silence. The pipers whipped the chanters from their mouths; the children, suddenly stopping in their merriment, cast one awestruck glance towards the door, and then slunk back to their seats. They had observed not only Mr. —, but also the Prince himself. Macleod was left standing alone in the middle of the floor.

"Sir Keith Macleod?" said His Royal Highness, with a smile.

Macleod bowed low.

"Lady — told me what you were about. I thought we could have had a peep unobserved; or we should not have broken in on the romp of the children."

"I think your Royal Highness could make amends for that," said Macleod.

There was an inquiring glance.

"If your Royal Highness would ask some one to see that each of the children has an orange, and a tart, and a shilling, it would be some compensation to them for being kept up so late."

"I think that might be done," said the Prince, as he turned to leave. "And I am glad to have made your acquaintance, although in"—

"In the character of a dancing-master," said Macleod, gravely.

After having once more visited Oscar, in the company of Piobaire Beag, Macleod went up again to the brilliantly-lit hall; and here he found that a further number of his friends had arrived. Among them was young Ogilvie, in the tartan of the 93rd Highlanders; and very smart indeed the boy-officer looked in his uniform. Mrs. Ross was here too; and she was busy in assisting to get up the Highland quadrille. When she asked Macleod if he would join in it, he answered by asking her to be his partner, as he would be ashamed to display his ignorance before an absolute stranger. Mrs. Ross most kindly undertook to pilot him through the not elaborate intricacies of the dance; and they were fortunate in having the set made up entirely of their own friends.

Then the procession of the children

took place; and the fantastically dressed crowd formed a lane to let the homely-clad lads and lasses pass along, with the six small pipers proudly playing a march at their head.

He stopped the last of the children, for a second.

"Have you got a tart, and an orange, and a shilling?"

"No, sir."

"I have got the word of a prince for it," he said to himself, as he went out of the room. "And they shall not go home with empty pockets."

As he was coming up the staircase again to the ball-room, he was preceded by two figures that were calculated to attract any one's notice by the picturesqueness of their costume. The one stranger was apparently an old man, who was dressed in a Florentine costume of the fourteenth century—a cloak of sombre red, with a flat cap of black velvet, one long tail of which was thrown over the left shoulder and hung down behind. A silver collar hung from his neck across his breast: other ornament there was none. His companion, however, drew all eyes towards her as the two passed into the ball-room. She was dressed in imitation of Gainsborough's portrait of the Duchess of Devonshire; and her symmetrical figure and well-poised head admirably suited the long-trained costume of blue satin, with its *fichu* of white muslin, the bold, coquettish hat and feathers, and the powdered puffs and curls that descended to her shoulders. She had a gay air with her, too. She bore her head proudly. The patches on her cheek seemed not half so black as the blackness of her eyes, so full of a dark mischievous light were they; and the redness of the lips—a trifle artificial, no doubt—as she smiled, seemed to add to the glittering whiteness of her teeth. The proud, laughing, gay coquette: no wonder all eyes were for a moment turned to her, in envy or in admiration.

Macleod, following these two, and finding that his old companion, the pensive clown in cap and bells, was still at his post of observation at the door, remained there also for a minute or two; and noticed that among the first to recognise the two strangers was young Ogilvie, who, with laughing surprise in his face, came forward to shake hands with them. Then

there was some further speech; the band began to play a gentle and melodious waltz; the middle of the room cleared somewhat; and presently her Grace of Devonshire was whirled away by the young Highland officer, her broad-brimmed hat rather overshadowing him, notwithstanding the pronounced colors of his plaid. Macleod could not help following this couple with his eyes, whithersoever they went. In any part of the rapidly moving crowd he could always make out that one figure; and once or twice as they passed him it seemed to him that the brilliant beauty, with her powdered hair, and her flashing bright eyes, and her merry lips, regarded him for an instant; and then he could have imagined that in a bygone century—

"Sir Keith Macleod, I think?"

The old gentleman with the grave and scholarly cap of black velvet and the long cloak of sober red, held out his hand. The folds of the velvet hanging down from the cap rather shadowed his face; but all the same Macleod instantly recognised him—fixing the recognition by means of the gold spectacles.

"Mr. White?" said he.

"I am more disguised than you are," the old gentleman said, with a smile. "It is a foolish notion of my daughter's, but she would have me come."

His daughter! Macleod turned in a bewildered way to that gay crowd, under the brilliant lights.

"Was that Miss White?" said he.

"The Duchess of Devonshire. Didn't you recognise her? I am afraid she will be very tired to-morrow; but she would come."

He caught sight of her again. That woman—with the dark eyes full of fire—and the dashing air—and the audacious smile——? He could have believed this old man to be mad. Or was he only the father of a witch—of an illusive *ignis fatuus*—of some mocking Ariel darting into a dozen shapes to make fools of the poor simple souls of earth?

"No," he stammered, "I—I did not recognise her. I thought the lady who came with you had intensely dark eyes."

"She is said to be very clever in making up," her father said, coolly and sententiously. "It is a part of her art that is not to be despised. It is quite as im-

portant as a gesture or a tone of voice in creating the illusion at which she aims. I do not know whether actresses, as a rule, are careless about it, or only clumsy; but they rarely succeed in making their appearance homogeneous. A trifle too much here; a trifle too little there; and the illusion is spoiled. Then you see a painted woman; not the character she is presenting. Did you observe my daughter's eyebrows?"

"No, sir, I did not," said Macleod, humbly.

"Here she comes. Look at them."

But how could he look at her eyebrows, or at any trick of making up, when the whole face with its new excitement of color, its parted lips and lambent eyes, was throwing its fascination upon him? She came forward laughing, and yet with a certain shyness. He would fain have turned away.

The Highlanders are superstitious. Did he fear being bewitched? Or what was it that threw a certain coldness over his manner? The fact of her having danced with young Ogilvie? Or the ugly reference made by her father to her eyebrows? He had greatly admired this painted stranger, when he thought she was a stranger; he seemed less to admire the artistic make-up of Miss Gertrude White.

The merry Duchess, playing her part admirably, charmed all eyes but his; and yet she was so kind as to devote herself to her father and him, refusing invitations to dance, and chatting to them—with those brilliant lips smiling—about the various features of the gay scene before them. Macleod avoided looking at her face.

"What a bonny boy your friend Mr. Ogilvie is," said she, glancing across the room.

He did not answer.

"But he does not look much of a soldier," she continued. "I don't think I should be afraid of him, if I were a man."

He answered, somewhat distantly,

"It is not safe to judge that way—especially of any one of Highland blood. If there is fighting in his blood, he will fight when the proper time comes. And we have a good Gaelic saying—it has a great deal of meaning in it, that saying—*You do not know what sword is in the scabbard until it is drawn.*"

"What did you say was the proverb?"

she asked ; and for a second her eyes met his—but she immediately withdrew them, startled by the cold austerity of his look.

"You do not know what sword is in the

scabbard until it is drawn," said he, carelessly. "There is a good deal of meaning in it."—*Good Words.*

PROFESSOR HUXLEY ON THE DEGENERACY OF MODERN OPINION.

It is not often that Professor Huxley wraps himself in a cloak of despondency, and like a scientific Lara, glooms out upon the world from a darkness of his own making. But those who will read his recent lecture, now published in the February number of the *Fortnightly Review*, will find it concluding with one of the strangest threnodies to which even a self-tormenting man of genius ever yet gave birth. He concludes with a suggestion, which he says "may, perhaps, be dictated by a want of power, on the part of a man who is growing old, to adjust himself to a changing world. The great mark of senility, I believe, is to be a *laudator temporis acti*. But as Harvey says, 'the die is cast, and I put my faith in the candor of the lovers of truth and of learned minds.'" And again:—"As I have confessed, I find myself to be regrettably out of harmony with many worthy and enthusiastic people among my contemporaries; and perhaps the prospect of the coming of the new Era, in which these things shall be, does not affect others as it does me. To say truth, I am rather glad to think, that the species can hardly be perfected thus far in my time. I most distinctly admit that I should be loath to be obliged to exist in a world in which my notions of what man should be and do, will have no application. As the old Norseman said, when the choice of heaven with the new generation and hell with the old was offered him, 'I prefer to be with my ancestors.'" There is a grandeur, no doubt, in this highly Conservative gloom of Professor Huxley's. Mr. Arnold's comment on Wordsworth's latest phase would apply to the present condition of Professor Huxley's mind:—

"He grew old in an age he condemned.
He looked on the rushing decay
Of the times which had sheltered his youth,—
Felt the dissolving throes
Of the social order he loved,—
Outlived his brethren, his peers;
And like the Theban seer,
Died in his enemies' day."

But after all, the assumption of having

outlived his generation, is not unfrequently the device of skilful irony on the part of one who, at the zenith of his influence, genius, and popularity, is willing to show how little, compared with his own, is the wisdom of the foolish and perverse generation with which his lot is cast; and in Professor Huxley's case we find this irony the more clear, that he makes no concealment of letting the lyrical cry of his complaint rise here and again into sharp sarcasm, and then drop into the deepest tones of grave indignation. But our readers will be eager to know—what we have hitherto purposely kept back from them,—what it is which Professor Huxley finds so much amiss in the tendencies of the day, that he makes this solemn appeal to the past, by way of justifying himself for rejecting the new voices and abiding by the men of old. It is not our superstition he condemns, nor our light curiosity, nor the flippancy of our frivolous age. He confronts the seventeenth century with the nineteenth, only to find the nineteenth lamentably wanting in all the greatest qualities of head and heart, but it is not its contented ignorance with which he taunts it,—though he does not acquit it even of that,—nor its selfish avarice, nor its shallow self-conceit. He goes back a couple of centuries, not, of course to confront it, like Father Newman, with an age of gloomier and more passionate bigotry than ours, which had a stronger belief in the sin of rebelling against authority, and so grasped truths which we miss, but for the purpose of confronting it with an age which had no scruple in vivisection! This is the great moral advantage of the seventeenth century over our own in Professor Huxley's eyes. That century, he says, never hesitated to inflict "pain and death in a good cause;" and by "a good cause" Professor Huxley means not the cause of the righteous or the innocent, in the name of which the right is claimed to shed the blood of the guilty or even the blood of those who innocently identify themselves with the guilty cause, but the cause of the

eager investigator, who claims the right of inflicting any amount of suffering that he finds needful, on the innocent creatures through whose tortures alone he thinks that he can find a clue to the truth he seeks. In a word, all this melancholy brooding on a degenerating world, all this appeal to the glories of the age of Shakespeare and Cromwell, all this stern ridicule of the softness of a shrinking and morbid age, is lavished on those who think torture inadmissible as a mere instrument for the discovery of truth. Professor Huxley arises and shakes the dust off his feet—not when he thinks of our lack of willingness to labor and to suffer in the highest cause, but when he finds us refusing to justify a man who, like Harvey,—in a day when anæsthetics did not exist,—would cut open any number of living creatures that might be needful to verify the theory of the circulation of the blood; or eagerly condemning those who, in our own time, have done the like on a considerable scale,—and this for eight hours at a time in the case of each tortured victim (rejecting, too, the use of anæsthetics, on the ground that they disturb some of the elements of the experiment),—to test the relative effect of various drugs in producing the secretion of bile. Now, whether—to keep up the mild fiction of postponing, as Professor Huxley affects to postpone, the discussion of the issue on which he virtually passes the strongest possible judgment—Professor Huxley is right or wrong in this matter, surely it might be said that the disposition which he repudiates is hardly one of a kind to make him gloom over his lot in living in the age when it has shown itself, and thankful that he must pass away before it can gain its full ascendancy. We can understand a man's intolerance of the superficial knowledge and conceit of our day,—of its slipshod deference to a public opinion which is nobody's private opinion,—of its ostentatious zeal for an enlightenment the characteristics of which it picks up only by hearsay and by no thorough-going discrimination of its own; we can understand, too, the religious man's scorn for the religiosity which means nothing but a preference for giving big names to very slight emotions; and we can enter into the true philanthropist's contempt for that fashionable charity which compounds for genuine work by the drawing of

cheques; but even assuming for a moment Professor Huxley's view that it is the stern, scientific duty of an investigator to inflict torture freely, rather than shrink from prosecuting the search for physiological truth, if that be the only means by which it can be found,—assuming, we say, for a moment that this view were true,—even so, we could hardly imagine a man seriously bewailing his lot in living in an age so degenerate as to decry this view, or congratulating himself that he must pass away before this false kindness for the poor relations of man, can spread far and wide. Yet such is the temper of the remarkable peroration in which Professor Huxley appeals to the time of Shakespeare and Milton, Hobbes and Locke, Harvey and Newton, Drake and Raleigh, Cromwell and Strafford, against our own “softly nurtured, not to say sentimental age,” and which, in the depth of his stern melancholy, he concludes by avowing that he would much prefer the pangs of condemnation with them, to earning the praises and rewards of our feeblery day. Is there really, then, nothing more contemptible or weaker in this age of ours than its disposition to regard equal sufferings, whether of man or beast, as having equal claims on our pity? than its superstition,—if it be superstition,—in supposing that the same amount of torture which it would be wicked as well as criminal to inflict on a man with a scientific object, it would be wrong to inflict on a beast with that same object? than its hesitation in regarding our sovereignty over the world of animal life as so absolutely unlimited as our superior intelligence, cunning, and indifference to the inferior races have often practically made it?

And is science itself so exempt from all responsibility for this humane, or as Professor Huxley thinks it, weak-minded disposition, as Professor Huxley's scorn would imply? Is it possible to trace the fine links which connect human life with the life of the animal world beneath us, and yet refuse to extend the horror with which we should regard the torture of men from scientific motives, to the torture of the monkey or the dog with the same motives? Has the theory of evolution nothing to do with the sympathy which one of the greatest of the teachers of evolution so scornfully condemns? Or does Professor Huxley wish us to draw the in-

ference in the other direction, and to persuade us that we ought to be willing not only to endure pain ourselves, but to inflict torture on men as well as brutes, in the interests of the physiological science which he thinks deserving of so costly a sacrifice? If he does, we admit the coherence of his logic, but have some reason to reproach him with having never openly avowed this article of faith,—an avowal which would, we suspect, have greatly diminished the influence of his authority in favor of the more ordinary view which he does support. If he does not, but would disavow with horror the right to elicit physiological truth at the cost of human torture, how can he wonder that he and those like him who have so long been teaching us to see the essential similarity of the animal life in man and the same life in the higher mammals, should have done much towards undermining the unscrupulousness with which men have so often inflicted on the lower animals, even for otherwise beneficent ends, sufferings which they would deem it a pure iniquity to inflict for mere purposes of investigation on the vilest of the human race? Assuredly it is strange that those who have done most to preach the gospel of the descent of man from the brute, should protest with so grand an indignation against the very natural inference that, so far, and in proportion, as the brute is capable of sharing our sufferings, so far and in that proportion he should be protected, just as man is, from our curiosity, and for precisely the same reasons;—*so far, but no farther*, we say, for it will be found that a great many of Professor Huxley's sneers are founded on the, of course, absurd assumption that the humanitarians whom he ridicules and condemns desire to ensure to the brute perfect immunity from sufferings to which men do not for a moment hesitate to expose themselves.

Let Professor Huxley, then, cheer up,

We do not, of course, take his profound melancholy as altogether serious. We are quite sure that there is in it an ironic vein, which is meant rather to make us ashamed than to excite our pity. But still, no doubt, there is a residuum of reality in his dejection, and though we do not exactly suppose that he would welcome death solely because it will rid him sooner of a society which condemns scientific torture in the interests of physiology, we do really take him at his word so far as to think that he is a little ashamed of belonging to a race which can hold such views as we have indicated, and that he would prefer to associate, barring perhaps their theological views, with the generation of Harvey and "his Sovereign," whose "favored friend," as Professor Huxley tells us, Harvey was,—the sovereign in question being, by the way, James I., to whose moral discrimination we are somewhat surprised to find Professor Huxley appealing, as if it could add anything at all to his own judgment, or the judgment of men like him. We cannot, however, spare Professor Huxley, so well as he could spare us and those who think with us. Nay, we attribute directly to his teaching a good deal of the very moral tendency he so scornfully condemns, and are disposed to believe that his own practice would be a good deal more like our theory, than is his own theory. But if he must for once bewail his fate in belonging to so namby-pamby a generation as the present, let him console himself with the thought that had he lived with Harvey, and been, like Harvey, the "favored friend" of Harvey's Sovereign, he would, at least, have had no dream of "the descent of man," and no difficulty, therefore, in convincing his contemporaries that the sufferings of the lower creatures had nothing at all in common with the sufferings of the "favored friend" of James I.—*The Spectator*.

CONSTANTINOPLE.*

THERE are four cities in the world that belong to the whole world rather than to any one nation, cities that have influenced

the whole world, or round which its history has at one time or another revolved, cities in which students and philosophers from every country are equally interested. These four are Jerusalem, Athens, Rome, Constantinople. The first has given to

* A lecture delivered in Aberdeen on January 3rd, 1878, with some additions.

civilised mankind their religion ; the second has been our great instructress in literature and art ; the third has spread her laws, her language, her political and ecclesiastical institutions over half the globe. And though Constantinople can lay no claim to the moral or intellectual glories of these other three, though her name does not command our veneration like Jerusalem, nor our admiring gratitude like Athens, nor our awe like Rome, she has preserved, and seems destined to retain, an influence and importance which they have in great measure lost. They belong mainly to the past : she is still a power in the present, and may be a mighty factor in the future. For fifteen hundred years she has been a seat of empire, and for an even longer period the emporium of a commerce, to which the events of our own time seem destined to give a growing magnitude. To set before you anything like an adequate account of a city interesting in so many different ways, physically, historically, architecturally, socially, politically, would require not one lecture, but a big book—so you will understand that I cannot attempt more to-night than to touch on a few points which may help you to realise a little better what Constantinople is really like, what is the sort of impression it makes on a traveller, what are the feelings with which he treads its streets pondering over the past and speculating on the future. Anything that helps to give substance and vitality to the vague conception one forms of a place which one has been reading and hearing about all his life may be of some use, especially at this moment, when we are told that we ought to fight for Constantinople, and may any morning be informed that our own fleet has gone to anchor under its walls. Before I speak of its history, or attempt to describe its present aspect and characterise the men that inhabit it, let me try to give you some notion of its geographical situation, and of the wonderful advantages for strategical and commercial purposes which that situation confers upon it.

If you look at the map you will see what a remarkable, and indeed unique, position Constantinople occupies. It is on the great highway which connects the Black Sea with the Mediterranean, and separates Europe from Asia. Thus it commands at once two seas and two con-

tinents. All the marine trade, both export and import, of the vast territories which are drained by the Danube and the great rivers of Southern Russia, as well as that of the north coast of Asia Minor, and of those rich Eastern lands that lie round the Caspian, must pass under its walls. When the neighboring countries are opened up by railways it will be the centre from which lines will radiate over European Turkey and Asia Minor. With a foot, so to speak, on each continent, the power that possesses it can transfer troops or merchandise at will from the one to the other, and can prevent any one else from doing so. Then consider how strong it is against attack. It is guarded on both sides by a long and narrow strait—to the N.E. the Bosphorus, and to the S.W. the Dardanelles—each of which can, by the erection of batteries, possibly by the laying down of torpedoes, be easily rendered impregnable to a naval attack. For the Bosphorus, as you probably know, is fifteen miles long, with bold rocky hills on either side, and a channel which is not only winding but is nowhere over two miles and in some places scarcely half a mile wide. And it possesses a splendid harbor, land-locked, tideless, and with water deep enough to float the largest vessels. On the land side it is scarcely less defensible, being covered by an almost continuous line of hills, lakes, and marshes with a comparatively narrow passage through them, which offers great advantages for the erection of fortifications. There is no other such site in the world for an imperial city. In other respects it is equally fortunate. Of its beauty I shall say something presently. Although the climate is very hot in summer, and pretty keen in winter, it is agreeable, for the air is kept deliciously fresh by the seldom failing breezes that blow down from the Euxine or up from the Ægean sea, and the sea itself is a great purifier. Though there is no tide there is a swift surface current sweeping down into the sea of Marmora and the Mediterranean, a current at one point so strong that boats have to be towed up along the shore, which carries off whatever is thrown into the water. So, though it is one of the dirtiest towns in the East, I fancy it is one of the most healthy.

You may easily believe that such an attractive site was not left long unoccu-

ped. In the year 667 B.C., not a hundred years after the foundation of Rome, and about the time when King Esarhadon was attacking Manasseh, son of Hezekiah, at Jerusalem, some Greeks from Megara, a little city between Athens and Corinth, came sailing up into these scarcely explored seas, and settled on this tempting point of land, where they built a city, which they called Byzantium, and surrounded it with walls to keep off the wild tribes of the Thracian mainland. They were not, however, the first settlers in the neighborhood, for seventeen years before another band of Greeks, also from Megara, had established themselves on a promontory opposite, on the Asiatic side of the strait, and founded the town of Chalcedon, which still remains there, and is now called Kadikeui. It was a standing joke among the ancients that the people who took the site of Chalcedon when they might have taken that of Byzantium must have been blind: so the story went, that when the Megarians asked the oracle of Apollo at Delphi where they should send a colony to, the oracle bid them fix themselves opposite the blind men; when therefore, on sailing up this way, they saw a town planted opposite this so far superior spot, they concluded that its inhabitants must be the blind men whom Apollo meant, and established themselves here accordingly.

The city soon grew and throve, not only because it was well placed for trade, but on account of the shoals of fish—a fish called pelamys, which has been conjectured to be a kind of tunny—that used to come down from the Black Sea, and which were attracted into the harbor by the stream of fine fresh water which flowed into the upper end of it. Whether the fresh water brought down insects or other tiny creatures on which the fish fed, or whether it caused the growth of beds of sea-weed which served as pasture, is not clear, but at any rate it was the stream that lured in the fish, and the fish that made the fortune of the place. For the Byzantines drove a roaring trade in these fish—the name of Golden Horn, which the harbor still bears, is said to be derived from the wealth they drew from this source. They also raised a large revenue by levying a tax on the corn ships that passed out through the Straits from Southern Russia; for that

region, then called Scythia, had already become, as it is now, one of the greatest grain-producing countries in the world. With this command of a main artery of trade, Byzantium had grown by the time of Herodotus to be a considerable place, whose possession or alliance was thenceforward very valuable to the great powers that disputed the control of these countries. Having submitted, like other Greek cities of that region, to the Persians, it recovered its independence after the defeat of Xerxes, and became a member of the Athenian confederacy, till the Athenian power was in its turn overthrown. In the days of Philip of Macedon, it was again an ally of Athens, and stood a famous siege from that prince, a siege whose happy issue was due to the energy with which Demosthenes pressed the Athenians to send succor to it when it was on the point of yielding. It is related that during this siege a bright light in the form of a crescent was seen in the sky, and accepted by the Byzantines as a sign of deliverance; and that after Philip's repulse, they took the Crescent to be the device of the city, which it continued to be till the Turkish conquest. Some hold that this is the origin of the Crescent as the Ottoman badge.* Many another attack it had to resist, both before and after it submitted to the dominion of Rome. But whatever misfortune might befall it at the hands of enemies, it always recovered its wealth and consequence. The inhabitants are described as a race of well-to-do, luxurious people, much given to good eating and drinking, since they had abundance of fish, and the neighboring country produced excellent wine. It was a story against them that when a Byzantine officer ought to be at his post on the walls, he was generally to be found in a cook shop or tavern. In A.D. 330, Constantine the Great, who had then become sole emperor at Rome, determined to found a new capital, which would be a better centre of defence for the part of his empire which seemed most threatened by the barbarians of the north, and made choice of Constantinople as the spot. His practised military eye saw its wonderful strength, which had enabled it to resist him for some time

* There is, however, some evidence that the Seljukian Turks had used the Crescent long before; and it has been suggested that they borrowed it from the Chinese.

in his great war with the Emperor Licinius, and every traveller had long admired its advantages for commerce. Besides, he had just embraced Christianity, and as Rome was full of the majestic monuments of paganism, he thought that the new religion would rise faster and flourish more freely in a clear field, where it would not be confronted or corrupted by the passions and prejudices of the past. He called it New Rome, but his court and people called it the City of Constantine; and the name of Constantinople at once superseded that of Byzantium.

Under his hands its sprung at once into greatness. The old Greek colony had occupied only the extreme point of the peninsula between the port and the Sea of Marmora: the new city filled the whole of it, covering almost the same area as Stamboul* does now; and was probably built a good deal more densely, since a considerable part of that area is now wasted in gardens or ruins. He brought some distinguished families from Rome, and allured settlers from all quarters by the offer of privileges and exemptions: as the seat of government it attracted many more, so that the population had risen in a century from his time to more than two hundred thousand. Immense sums were spent in the erection of palaces, law-courts, churches, and other public buildings; and the cities of the Ægean were ransacked to furnish masterpieces of Grecian art to enable its market-places and porticoes to rival those of Italian Rome. One such work of art has survived till our own day, and may still be seen in what was the hippodrome or race-course of the city. It is a brazen column, consisting of three twisted serpents, which was brought from Delphi, where it supported the tripod which the victorious Greeks dedicated to Apollo after the great Persian War. The tripod has long since vanished, and the serpents have suffered much—one of them had its lower jaw smitten off by the mace of Mohammed II., and all have lost their heads, but the venerable relic—probably the most remarkable relic that the world possesses—still keeps its place, and may

perhaps witness as many vicissitudes of fortune in the future as it has done in the three and twenty centuries that have passed since it was set up in the Pythian shrine.

From A.D. 330 to A.D. 1453, Constantinople was the capital of the Roman Empire of the East; and its history may almost be called the history of that Empire. It had many a siege to stand, sometimes in civil wars, sometimes from barbarian enemies like the Persians, who encamped for three years over against it at Scutari, or the Arabs in their first flush of conquering energy, or the Russians, who came across the Black Sea in huge flotillas. All these foes it repelled, only to fall at last before those who ought to have proved its friends, the French and Venetian Crusaders, who in A.D. 1204 turned aside hither from their expedition to Palestine to attack it. They drove out the Eastern Emperor, and set up a Frank in his place. They sacked the city, and wrought more ruin in a few days than all previous enemies had done in as many centuries. The Eastern Empire never recovered this cruel blow, and though after a while these Franks were expelled, and a native prince again (1261 A.D.) sat on the throne of Constantine, his territory was now too small, and the organization of the state too much shattered to enable any effective resistance to be offered to the progress of the terrible foe who advanced first from Asia Minor, then on the side of Europe also. In A.D. 1453 the Turks took Constantinople, and extinguished the Eastern Empire. At that time Constantinople was sadly shorn of its glories. The public buildings had fallen to decay; war and poverty had reduced the population to about one hundred thousand, and these inhabitants had so little martial spirit that the defence of the city had to be intrusted to Western mercenaries. Of this scanty population the majority were slain or led captives by the conquerors, so that Mohammed II. found it necessary to repeople his prize by gathering immigrants from all quarters, just as Constantine had done eleven hundred years before. Small indeed can therefore be the strain of old Byzantine blood that runs in the veins of the modern people of Constantinople. Mohammed transferred his government hither from Adrianople, and since his day this has been the centre of Ottoman do

* Stamboul (said to be a corruption of *εις την πόλιν*) though often used as a name for Constantinople generally, denotes properly the old city between the inlet called the Golden Horn and the Sea of Marmora, as opposed to Galata and Pera.

minion and a sacred city, hardly less sacred than Jerusalem or even Mecca, to the Mohammedan world.

One word, before we part from old Constantinople, on the mission which was intrusted to her during the long ages that lay between Constantine the Great, her founder, and Constantine Palæologus XVI., her last Christian sovereign. While the rest of Europe was plunged in barbarism and ignorance, she preserved, like an ark amid the far-spreading waters, the treasures of ancient thought and learning. Most of the Greek manuscripts we now possess, and some of the most valuable Latin ones, were stored up in her libraries, and ultimately scattered from her over the western countries. A succession of writers maintained, though no doubt in a lifeless way, the traditions of Greek style, and composed chronicles which are almost our only source of knowledge for the history of these borderlands of Europe and Asia. And the light which still burned within her walls was diffused over the Slavonic peoples of the Danube and the Dnieper valleys. She was the instructress of the Slavs, just as Italy was the instructress of the Teutons and the Celts, sending out missionaries, giving them their alphabets, and, in the intervals of the struggle she had to maintain against them, imparting to them some rudiments of civilisation. And the services she rendered in this way have been too much forgotten by those who have been struck, as every student must be struck, between the theological and political stagnation of her people, and the powerful intellectual life which even in the Dark Ages had begun to stir among the new nations of Western and Northern Europe.

What remained of literature, art, and thought expired, it need hardly be said, with the Turkish conquest. From then, till now, the history of Constantinople is a tedious record of palace assassinations and intrigues. Not even a gleam of the literary radiance which surrounds the Mohammedan Courts of Bagdad, Cordova, and Delhi ever fell upon the Seraglio of Constantinople. Some of the Turkish Sultans, such as Mohammed II. and Suleiman the Magnificent, were undoubtedly great men; but their greatness seldom expanded itself in any of the arts of peace, and in the city there is nothing to remem-

ber them by except their tombs and the mosques that bear their names.

Let me now attempt—having tried to show you how the city has grown, and what are the different national influences, Greek, Roman, and Asiatic, that have acted on it and played their part in giving it its strangely mingled character—to present to you some notion of its structure and aspect. It consists of three main divisions. First there is the old city, the City of Constantine, which the Turks now call Stamboul, lying between the Golden Horn and the Sea of Marmora, and narrowing down to a point of land, the point which was the site of the first Megarian colony, and which marks the entrance from the sea into the long strait of the Bosphorus. Secondly, over against Stamboul, on the other side of the Golden Horn, is Galata—called probably from the Galatæ or Gauls (Galatians) who had occupied neighboring regions of Asia Minor not long after the time of Alexander the Great, and some of whom had apparently settled here—a long, low, dirty district running along the water's edge, and full of Greek sailors and bad smells. It was a mere suburb in Roman times, and bore the name of Sycæ (the Fig-trees). In the middle ages it became the seat of a fortress colony of the Genoese, who carried on a great trade in these seas, and had their forts and trading factories all round the Euxine. Here they built a majestic tower nearly half way up the slope of the hill, from whose top one of the finest panoramic views of the city may be enjoyed. Behind and above Galata, rising up the steep hill, is the quarter called Pera, where Europeans of the better sort live, and all the European shops are to be found. Here, on the hill top, stand the palaces of the Ambassadors, among which, appropriately enough, our own and that of the German envoy are the most conspicuous, tall piles that look big enough to hold an army. Both these quarters are in Europe, and from them a long suburb meanders along the European shores of the Bosphorus, forming a line of villages with villas and gardens between, that stretches some eight or nine miles to Thesrapia. The third and last division is in Asia, on the further side of the Bosphorus, opposite both Stamboul and Galata; it consists of a series of towns, the chief of which is Scutari, forming an almost

continuous mass of houses along the shore, and virtually a part of the great city, though separated by more than a mile of water, water which is sometimes so rough that the steamers cannot cross.

You may judge from looking at the map what a singular city this must be with the sea running through it in all directions, not merely in canals like those of Venice or Rotterdam, but forming great broad inlets whose water is intensely bright and clear, as well as deep to the very edge. It is as if you had a city built on both sides of the Kyles of Bute, at the point where one of the long sea lochs (Loch Riddon or Loch Striven) comes down into the main channel. Stockholm and New York are the only other great cities that can be compared with it in this respect, but Stockholm, though beautiful in its way, is on a comparatively small scale, while in New York man has done his utmost to spoil nature, and nature herself has done infinitely less than at Constantinople. Let me try to tell you what nature has done for Constantinople. She has given it the bluest and clearest sea that can be imagined, and vaulted over it the most exquisitely bright yet tender sky, full of a delicious light that would be dazzling if it were not so soft. She has drawn the contour of the shores and hills as if with an artist's hand, the sweeping reaches of the Bosphorus, the graceful curve of the Golden Horn, the soft slope of the olive-clad heights behind Scutari, the sharp, bold outline of the rocky isles that rise from the surface of the Sea of Marmora; and far away on the south-eastern horizon she has raised into heaven the noble summit of the Mysian Olympus, whose snows blush rose red under the morning sun. The sea seems to pervade everything: turn which way you will it meets you, till you get confused among its winding arms. Its glittering bosom is covered with vessels of every size and style, from the long dark ugly ironclads, which the late Sultan bought from the Clyde and Tyne shipbuilders with borrowed money, to the sprightly feluccas and other odd little craft, rigged in a fashion our language has no names for. During the day its surface is seldom calm, for there is usually a breeze blowing, and when this breeze comes up from the S.W. and meets the strong current running down from the Black Sea, it raises in a moment short sharp waves, a kind of chopping sea that makes

the small boats vanish. The nights, however, are often still and serene, and then under the brilliant moon the city seems to lie engirt by a flood of molten silver.

From the shore, lined with masts, the hills rise almost everywhere steeply, bearing on their side and tops the town, or rather these three towns, looking across at one another, which I have endeavored to describe. The houses are mostly of glittering white, densely packed together, but interrupted every here and there by a grove of tall dark-green cypresses. Such an ancient grove almost covers one side of the hill of Pera, overshadowing a large cemetery called the Field of the Dead. The Turks say that the smell of the cypress and the resin it exudes destroy the miasma of a graveyard. At any rate their sombre hue and stiff outline harmonise well with the ruinous tombs that lie scattered round their trunks; for in Turkey the graves are not inclosed, and the stone once stuck into the ground is left neglected to totter or fall. Out of the mass of white walls and red roofs rise the vast domes of the mosques, and beside or round each mosque, two or four, or even six slender minarets, tall needle-like towers of marble, with a small open gallery running round the outside, whence, four times a day, the shrill cry of the man who calls the faithful to prayer is heard over the hum of the crowd below. The houses in Stamboul itself are seldom over two or three stories high, and often of wood, sometimes whitewashed, sometimes painted red or yellow, and generally rickety and flimsy-looking. In Pera and the suburbs one finds substantial mansions and villas, but these mostly belong to well-to-do Christian merchants. There are few public buildings besides the mosques to be seen, for the old palaces have been burned—Constantinople is a terrible place for fires—and as for the new ones, of which there are more than enough, they are mostly long low structures in the modern French or Italian style, upon the edge of the Bosphorus. Sultan Abdul Aziz spent millions upon these erections; in fact, the loans made since the Crimean war were nearly entirely sunk in these and in his men-of-war. They tell a story of one of the prettiest of them, that he built it at an enormous cost as a place to go to for coffee in the afternoon. When it was finished he went, and finding himself with a headache

next morning, took a disgust to it, and never entered it afterwards. This is what personal government comes to in the East. As for the ordinary ornaments of European capitals—museums, picture-galleries, theatres, libraries, universities, and so forth—they don't exist at all. The administration cares for none of such things, and has hardly even supplied itself with respectable public offices (except the Ministry of War, which is a large place with the air of a barrack, deforming the finest site in Stamboul); and private enterprise has produced nothing more than two or three wretched little places of amusement for the Franks and Greeks of Pera. Nowhere is there a church to be discovered. Half the inhabitants are Christians; and most of them devout Christians according to their lights; but the Muslim population, who are the object of our protecting care, are still intolerant enough to be irritated by the sight of a place of Christian worship. So the churches are all (except the English church in Pera) comparatively small and obscure, hidden away in corners where they don't catch the eye. The ancient churches have been nearly all turned into mosques or suffered to fall to ruin, so that little material remains for the student of mediæval architecture. In fact, one may get a better notion of Byzantine art at Ravenna alone than in the whole territories of the later Eastern Empire.

People are always saying that the inside of Constantinople dispels the illusions which the view of it from the sea or the neighboring hills has produced. But those who say so, if they are not merely repeating the commonplaces of their guide-book, can have no eye for the picturesque. I grant that the interior is very dirty and irregular and tumble-down, that smells offend the nose, and loud harsh cries the ear. But then, it is so wonderfully strange and curious and complex, full of such bits of color, such varieties of human life, such far-reaching associations from the past, that whatever an inhabitant may desire, a visitor at least would not willingly see anything improved or cleared away. The streets are crooked and narrow, climbing up steep hills, or winding along the bays of the shore, sometimes lined with open booths, in which stolid old Turks sit cross-legged, sleepily smoking, sometimes among piles of gorgeous fruit,

which even to behold is a feast, while sometimes they are hemmed in by high windowless walls and crossed by heavy arches, places where you think robbers must be lurking. Then, again, you emerge from one of these gloomy cavities upon an open space—there are no squares, but irregular open spaces—and see such a group of gaily painted houses, with walnut or plane-trees growing round them, as one finds on the Bay of Naples. Or you come to a side street, and, looking down the vista, catch a glimpse of a garden full of luxuriant vines and rosy pomegranates, and beyond it the bright blue waves dancing in the sunlight. Now and then one finds some grand old piece of Roman ruin—an arch or a cistern, or the foundations of some forgotten church, whose solidity mocks the flimsy modern houses that surround it—and is carried back in thought a thousand years, to the time when those courses of fine masonry were laid by the best architects of Europe. Not that there are many considerable ruins, for in this respect Constantinople contrasts markedly with her Italian rival. The reason of this is doubtless to be sought not merely in the superior grandeur of Roman buildings, but also in the fact that while in Rome the old city on and around the Palatine, Aventine and Coelian hills was deserted in the Middle Ages for the flats of the Campus Martius, the site of the ancient city has here been continuously inhabited, each age constructing its dwellings out of the materials which former ages had left. In another point, too, one is struck by the contrast between these ruins and those of Rome. Constantinople has absolutely nothing to show from pagan times. Though Byzantium was nearly as old as Rome, the city of Constantine is the true creation of the first Christian emperor, and possesses not a relic of paganism, except the twisted serpents from Delphi and an Egyptian obelisk planted near them in the hippodrome.

There are no shops in the streets of Stamboul proper, for nearly everything, except food, is sold in the bazaar, which is an enormous square building, consisting of a labyrinth of long covered arcades, in which the dealers sit in their stalls with their wares piled up round them. It is all locked up at sunset. You may buy most things in it, but the visitor is chiefly attracted by the rugs and carpets from Per-

sia, Anatolia, and Kurdistan, the silks of Broussa, and the stores of old armor (real and false) from everywhere. Purchasing is no easy matter, for a stranger is asked thrice the value of the goods, and unless he is content to be cheated both by the dealer and his own cicerone interpreter (who of course receives a secret commission from the vendor), he must spend hours and hours in bargaining. Business is slack on Friday (the Mussulman Sabbath) and on Saturday (since many of the dealers are Jews), as well as on Sunday. It is conducted under another difficulty, which drives the visitor almost wild—that of a multiplicity of “circulating mediums.” There is a Turkish metallic currency, and a paper currency, greatly depreciated, besides all sorts of coins of other nations constantly turning up, among which the Indian rupee is one of the commonest; and you have to make a separate bargain as to the value at which the coins you happen to have in your pocket will be taken. Hotel lodging, and indeed almost everything, is very dear: for Western books you pay half as much again as in London or Paris. There is little sign of a police in the streets, and nothing done either to pave or clean them. Few are passable for carriages, and the Turks leave everything to time and chance. The only scavengers are the vultures, which may sometimes be seen hovering about in the clear sky, and the dogs, of which there is a vast multitude in the city. Though you must have often heard of these dogs, the tradition which obliges every one who talks about Constantinople to mention them is too well established to be disregarded. Nobody owns them or feeds them, though each dog mostly inhabits the same quarter or street; and, in fact, is chased away or slain if he ventures into the territory of his neighbors. They are ill-favored brutes, mostly of a brown or yellowish hue, and are very much in the way as one walks about. At night they are a serious difficulty, for the streets are not lighted, and you not only stumble over them, but are sometimes, when you fall into one of the holes in the roadway, tumbled head foremost into a nest of them, whereupon a terrible snapping and barking ensues. However, they don't molest you unless you first attack them; and as canine madness is unknown, or

nearly so among them, nobody need fear hydrophobia.

I have talked about streets from force of habit, but the truth is that there are very few streets, in our sense of the word, in any quarter of the city. It is a congeries of houses: some of them built, in proper Eastern style, round courtyards, some with doors and windows looking towards the public way, but very few arranged in regular lines. It has the air of having been built all anyhow, the houses stuck down as it might happen, and the people afterwards left to find their way through them. Even the so-called “Grande Rue” of Pera, which has some very handsome French shops, is in some places as steep as the side of Lochnagar, and in others as narrow as an Edinburgh wynd. It is a capital place to lose yourself in, for you never can see more than a few yards ahead, and the landmarks you resolve to find your way back by—a ruined house, for instance, or a plane-tree standing in the middle of the road—turn out to be as common as pillar letter-boxes in our own streets, so that you, in trusting to them, are more bewildered than ever. The Russians, one would think, must feel themselves sadly at sea in such a town, for in St. Petersburg nearly every street is straight, and some of the great streets run so far without the slightest curve (three miles at the least), that one literally cannot see to the end of them.

Perhaps the strangest thing of all is to have trains and tram-cars running through this wonderful old eastern mass of mosques, bazaars, graveyards, gardens, and ruins. There is now a line of railway, which, starting from the centre of the port, goes right round the outside of the city, following the windings of the shore, away into the country. It does a large “omnibus traffic,” stopping every three or four minutes like the Metropolitan Railway in London, and I should fancy is the only thing in Constantinople that pays its way; while a tramway, beginning near the same point, passes along the principal line of streets—indeed, almost the only line level enough for the purpose—as far as the north-western gate. The cars are much like ours, built, I believe, in America; but they have the odd trick of always running several close one after another, so that you may wait an hour for one to overtake you, and then find three or four

come up, going in the same direction, in five minutes' time.

Of the countless sights of Constantinople I shall mention to you three only, the walls, the Seraglio Palace, and the famous church—now a mosque—of St. Sophia. The walls may be traced all round the sea front as well as the land side of the city, but they are naturally strongest and highest on the land side, where they run across the neck of the peninsula from the Sea of Marmora to the Golden Horn. And here they are indeed splendid—a double (in some places triple) line of ramparts with a deep moat outside, built of alternate courses of stone and brick, and guarded by grand old towers, the finest group of which (called the Seven Towers) stands at the sea end, and was long used as a state prison. In several places they are ruinous, and there the ivy and other climbing plants have half-filled the gaps, and clothed the glowing red with a mantle of delicate green. Many are the marks on them of the sieges they have stood, of strokes from stones hurled by the catapult, and blows delivered by battering-rams, long before gunpowder was heard of. The effect of their noble proportions is increased by the perfect bareness and desolation of the country outside, where there is nothing like a suburb, in fact no houses whatsoever, but merely fields, or open ground, or groves of dismal cypresses. These ramparts were first built by Theodosius (for the line of Constantine's walls was further in), and repaired again and again since his time down to the fatal year 1453, when the Turks, under Mohammed II., took the city. Since then little has been done, except that the Turks have walled up a small gate, still shown to visitors, because there is a prophecy that through it a Christian army will one day re-enter and drive them back into Asia. The stranger probably agrees with the Turk that the event predicted will happen, but doubts how far this simple device of theirs will delay it. It is a curious instance of their sluggish fatalism that they have not only allowed these walls to decay, which after all could be of little use against modern artillery, but that, when the present war began, they had done nothing to provide other defences, outlying forts and lines of earthworks, for the city on this its most exposed side. Indeed one is told that Sultan Abdul Medjid actually gave the

walls as a present to his mother, that she might make something out of the sale of the materials; and they would soon have perished, had not the British ambassador interfered in the interests of the picturesque.

The Seraglio Point is the extreme end of the peninsula of Stamboul (*i.e.* the old city proper, as opposed to Galata and Pera) where it meets the waves of the Sea of Marmora, looking down that sea to the west, and north-east up the Bosphorus towards the Euxine. Here a wall running across the peninsula severs this point from the rest of the town, and probably marks pretty nearly the site of the oldest Greek settlement. When Constantine founded his city he selected this district as the fittest for the imperial residence, since it was the most secluded and defensible, surrounded on three sides by the sea, and on it there was built a large rambling fortress palace, where the emperors dwelt, shrouding in its obscurity their indolence or their vices from the popular eye. After their fall it passed to the Turkish sultans, who kept their harem here, and from its walls the disgraced favorite was flung, sewn up, according to the approved fashion, in a sack, into the deep waters, whose current soon swept him or her away down to the open sea. No palace offers so great a temptation to crime, for in none could it be so well concealed and its victims so easily got rid of. Great part was consumed by fire more than thirty years ago, and has never been rebuilt; so most of this large area, which is still divided from the rest of the city by a high wall, remains a waste of ruins, heaps of rubbish with here a piece of solid old masonry, there a gaunt yellowish wall standing erect, while in the midst are groups of stone pines and tall, stiff, sombre cypresses, that seem as if mourning over this scene of silence and decay.

It is no inapt type of the modern Turkish empire, where no losses are repaired and forebodings of death gather thick around. And the spectator is reminded of the Persian poet's lines which Mohammed II. is said to have repeated when, on the day of his conquest, he entered the deserted palace of the emperors—

"The spider weaves her web in the palace of the kings,
The owl hath sung her watch song from the towers of Afrasiab."

A part of the palace escaped the fire,

and is still used, though not by the Sultan himself; and in what is called the outer seraglio, close to the wall which divides it from the city, and immediately behind St. Sophia, there are two buildings of some interest. One is the Museum of Antiquities, a bare room, half open to a courtyard, in which there lie, heaped up over the floor, the monuments of Greek art which have been sent hither from the Greek isles and Asia Minor. Statues and fragment of statues, stones bearing inscriptions, pieces of pottery and glass, and a variety of other similar relics, have been thrown together here like so many skeletons in a burial-pit, uncleaned, uncatalogued, uncared for, sometimes without a mark to indicate whence they came. No government in Europe has had such opportunities for forming a collection of Greek art treasures, and this is the result. What it has cared for is seen when you take a few steps from this charnel-house of art and enter St. Irene, the church of the Holy Peace, a beautiful bit of work in the best style of Byzantine architecture, which the Turks have turned into an armory. All down the nave and all along the walls rifles are stacked, swords and lances hung, while field cannon stand in the midst. The sanctuary of the Divine Peace teems with the weapons of war.

From whatever point you gaze upon the landscape of Constantinople this seraglio promontory, with its grove of lofty cypresses, seizes and holds the eye. It is the central point of the city, as it is also the centre of the city's history. Dynasties of tyrants have reigned in it for fifteen centuries, and wrought in it more deeds of cruelty and lust than any other spot on earth has seen.

St. Sophia, the third of the sights I have named, is one of the wonders of the world. It is the only great Christian church which has been preserved from very early times; for the basilicas of St. John Lateran and St. Mary the Greater at Rome have been considerably altered. And in itself it is a prodigy of architectural skill as well as architectural beauty. Its enormous area is surmounted by a dome so flat, pitched at so low an angle, that it seems to hang in air, and one cannot understand how it retains its cohesion. The story is that Anthemius, the architect, built it of excessively light bricks of Rhodian clay. All round it, dividing the recesses from the

great central area, are rows of majestic columns, brought hither by Justinian, who was thirty years in building it (A.D. 538-568), from the most famous heathen shrines of the East, among others from Diana's temple at Ephesus, and that of the Sun at Baalbec. The roof and walls were adorned with superb mosaics, but the Mohammedans, who condemn any representation of a living creature, lest it should tend to idolatry, have covered over all these figures, though in some places you can just discern their outlines through the coat of plaster or whitewash. In place of them they have decorated the building with texts from the Koran, written in gigantic characters round the dome (one letter Alif is said to be thirty feet long), or on enormous boards suspended from the roof, and in four flat spaces below the dome they have suffered to be painted the four archangels whom they recognise, each represented by six great wings, without face or other limbs.

One of the most highly cultivated and widely travelled ecclesiastics whom Russia possesses (they are, unhappily, few enough) told me that after seeing nearly all the great cathedrals of Latin Europe he felt when he entered St. Sophia that it far transcended them all, that now for the first time his religious instincts had been satisfied by a human work. Mr. Fergusson, in his *History of Architecture*, says something to a similar effect. This will hardly be the feeling of those whose taste has been formed on Western, or what we call Gothic, models, with their mystery, their complexity, their beauty of varied detail. But St. Sophia certainly gives one an impression of measureless space, of dignity, of majestic unity, which no other church (unless perhaps the Cathedral of Seville) can rival. You are more awed by it, more lost in it than in St. Peter's itself.

The Mohammedan worship in this mosque, which they account very holy, is a striking sight. At the end of it next Mecca there is a sort of niche or recess, where they keep the Koran, called the Mihrab. Well, in front of the Mihrab, just like the Greek priest before his altar, stands the mollah or priest who is leading the devotions of the congregation, while the worshippers themselves stand ranged down the body of the building in long parallel rows running across it, with an interval of

several yards between each row. As the mollah recites the prayers in a loud, clear, harsh voice, the people follow, repeating the prayers aloud, and follow also every movement of his body, sometimes bending forward, then rising, then flinging themselves suddenly flat on the floor and knocking their foreheads repeatedly against it, then springing again to their feet, these evolutions being executed with a speed and precision like that of a company of soldiers. Occasionally the reading of a passage in the Koran is interposed, but there is no singing, and this is fortunate, for the music of the East is painfully monotonous and discordant. Women are of course not present at the public service; for that would shock Mohammedan ideas, and in some Mohammedan countries, women, like dogs, are rigidly excluded from the house of prayer, and may occasionally be seen performing their devotions outside. Here, in Stamboul, however, I repeatedly noticed groups of half-veiled women seated on the floor of a mosque when worship was not proceeding, sometimes gathered into a group which was listening to a mollah haranguing them. On one of these occasions I asked the cicerone who accompanied us what the mollah was saying. He listened for a moment, and replied, "Oh, just what our priests say, to mind their own business and not to get into scrapes" (*pas faire des bêtises*), which seems to imply that the exhortations of the clergy of all denominations are, in Constantinople, of a more definitely practical character than one was prepared to expect. Islam has been so hard upon women, that it is something to find them preached to at all. I may say in passing that, although St. Sophia is by far the most beautiful of the mosques, some of the others, built in imitation of its general design, are very grand, their towering cupolas supported by stupendous columns, and the broad expanse of the floor almost unbroken by the petty erections and bits of furniture and chairs which so often mar the effect of Latin and Eastern churches.

Few buildings in the world inspire more solemn or thrilling thoughts than this church of Justinian. It witnessed the coronations of the Byzantine Emperors for nearly a thousand years; it witnessed the solemn mass by which the Cardinal Legate of the Pope celebrated the union,

so long striven for, and so soon dissolved, of the Greek and Latin Churches; and it witnessed the terrible death-scene of the Byzantine Empire. On the 29th of May, 1453, the Sultan Mohammed II. marshalled his hosts for the last assault upon besieged Constantinople. The thunder of his cannon was heard over the doomed city, striking terror into its people, and, while the battle raged upon the walls, a vast crowd of priests, women, children, and old men gathered in St. Sophia, hoping that the sanctity of the place would be some protection if the worst befell, and praying the help of God and the saints in this awful hour. Before noon the walls were stormed. The Emperor, who had fought like a true successor of Constantine, fell under a heap of slain, and the Turkish warriors burst into the city, and dashed like a roaring wave along the streets, driving the fugitive Greeks before them. Making straight for St. Sophia, they flung themselves upon the unresisting crowd; men were slaughtered—others, and with them the women and children, were bound with cords, and driven off in long files into captivity; the altars were despoiled, the pictures torn down, and before night fell every trace of Christianity that could be reached had been destroyed. They still show on one of the columns a mark which is said to have been made by the Sultan's blood-smeared hand as he smote it in sign of possession, and shouted aloud, with a voice heard above the din, "There is no God but God, and Mohammed is his prophet." Looking round this noble monument of Christian art, and thinking of that awful scene, it was impossible not to wish for the speedy advent of a day when the fierce faith of Arabia shall be driven out, and the voice of Christian worship be heard once more beneath this sounding dome.

Now, let me pass from the city to the people that dwell in it, and try to give you some notion of its vast and strangely mingled population. One of the most striking points about it is the sense of a teeming population which it gives. Standing on the top of the hill of Pera, you look down over a sea and port covered with vessels and boats, and see upon the amphitheatre of hills that rises from this blue mirror three huge masses of houses, straggling away along the shores in in-

terminable suburbs, while the throng that streams across the bridge of boats (reminding one of the *Vision of Mirza*) is scarcely less than that which fills the great thoroughfares of London. Pass beyond the walls, or climb the hill that hangs over Scutari, and the contrast is extraordinary. You look over a veritable wilderness, great stretches of open land, sometimes bare, sometimes covered with brushwood (for the big trees have been mostly cut down by the improvident people) with hardly a village or even a house to break the melancholy of the landscape. Much of this land is fertile, and was once covered with thriving homesteads, with olive-yards and vineyards, and happy autumn fields; but the blight of Turkish rule has passed over it like a scorching wind.

Constantinople is a city not of one nation but of many, and hardly more of one than of another. You cannot talk of Constantinopolitans as you talk of Londoners or Aberdonians, for there are none—that is to say, there is no people who can be described as being *par excellence* the people of the city, with a common character or habits or language. Nobody knows either the number of the population or the proportion which its various elements bear to one another; but one may guess roughly that the inhabitants are not less than 800,000 or 900,000, and that of these about a half, some say rather over a half, are Mohammedans. This half lives mostly in Stamboul proper and in Scutari, while Pera, Galata, and Kadikeui (Chalcedon) are left to the Christians. Except the Pashas, who have enriched themselves by extortion and corruption, and various officials or hangers-on upon the Government, they are mostly poor people, many of them very poor, and also very lazy. A man need work but little in this climate, where one can get on without fire nearly all the year, with very little food and clothing, and even without a house, for you see a good many figures lying about at night in the open air, coiled up under an arch or in the corner of a courtyard. Plenty of them are ecclesiastics of some kind or other, and get their lodging and a little food at the mosques; plenty are mere beggars. The great bulk are, of course, ignorant and fanatical, dangerous when roused by their priests, though honest enough fellows when left alone, and in some ways more likeable than the

Christians. But the so-called upper class are extremely corrupt.

These richer folk have mostly dropped the picturesque old Turkish dress, and taken to French fashions. They wear cloth coats and trousers, retaining only the red fez, which is infinitely less becoming than a turban; smoke cigarettes instead of pipes, and show a surprising aptitude for adding Western vices to their own stock, which is pretty large, of Eastern ones. It is they that are the curse of the country. They have not even that virtue which the humbler Mussulmans have, of sobriety. With all their faults, the poor Turks, and especially the country people, are faithful observers of the precepts of the Koran, and you will see less drunkenness in the streets of Stamboul in a year than in Glasgow upon New Year's Day. Indeed, if you do see a drunken man at all, he is pretty sure to be a British or a Russian sailor. When I speak of Turks, I do not mean to imply that these Mohammedans of Stamboul have any Turkish (that is Turkman) blood in them, for they have probably about as much as there is of Norman blood in the population of London. They are as mongrel a race as can be found in the world—a mixture of all sorts of European and Asiatic peoples who have been converted to Islam, and recruited (down till recent times) by the constant kidnapping of Christian children and the import of slaves from all quarters. Their religion, however, gives them a unity which, so far as repulsion from their fellow-subjects goes, is a far stronger bond than any community of origin.

Nearly equal in numbers to the Mohammedans are the Turkish Christians, Greeks, Armenians, and Bulgarians. Though I speak of them together, they have really little in common, for each cherishes its own form of faith, and they hate one another nearly as cordially as they all hate the Turks. The Armenians seem to be the most numerous (they are said to be 200,000), and many of the wealthy merchants belong to this nation: the Bulgarians, however, are, according to the report of the American missionaries, who are perhaps the best authorities, really the most teachable and progressive. The Americans have got an excellent college on the Bosphorus, where they receive Christian children belonging to all the nationalities. Then, besides all these

natives, one finds a motley crowd of strangers from the rest of Europe—Italians, Germans, Hungarians, Russians, Poles, Frenchmen, English. Thus there are altogether at least eight or nine nations moving about the streets of this wonderful city, eight or nine languages which you may constantly hear spoken by the people you pass, and five or six which appear on the shop fronts. Turkish, Greek, Armenian, French, and English are perhaps the commonest. Italian used to be the chief medium of intercourse between West Europeans and natives, but since the Crimean war it has been largely superseded by French. Indeed the varnish of civilization which the influx of Europeans has spread over so many parts of the East everywhere is, or pretends to be, French. So here the music-halls and coffee-gardens of Pera, which are of a sufficiently sordid description, have a sort of third-rate Parisian air about them which is highly appreciated by the repulsive crowd that frequents them.

The best place to realise this strange mixture of nationalities is on the lower bridge of boats which connects Stamboul with Galata, and from which the little steamers run up and down the Bosphorus. There are two such bridges crossing the Golden Horn, both somewhat rickety. The pontoons to form a new one have been made for some years, and are now floating beside the lower one, in the waters of the harbor, but, owing to a dispute between the government and the Frank contractors, they have never been put together, and may probably lie rotting there for years to come, perhaps till some new government is established in Stamboul. It is a delightfully Turkish way of doing things. This lower bridge is also the wharf whence start the little steamers that run up the Bosphorus and across to Scutari and Chalcedon, on the Asiatic shore. Stalls for the sale of food and trinkets almost block up its ends, and little Turkish newspapers, hardly bigger than a four-page tract, are sold upon it, containing such news as the Porte thinks proper to issue. Take your stand upon it, and you see streaming over it an endless crowd of every dress, tongue, and religion; fat old Turkish pashas loling in their carriages, keen-faced wily Greeks, swarthy Armenians, easily distinguished by their large noses, Albanians with prodigious sashes

of purple silk tied round their waists, and glittering daggers and pistols stuck all over them, Italian sailors, wild-eyed soldiers from the mountains of Asia Minor, Circassian beauties peeping out of their carriages from behind their veils, and swarms of priests with red, white, or green turbans, the green distinguishing those who claim descent from the Prophet. All these races have nothing to unite them; no relations except those of trade, with one another, no inter-marriage, no common civic feeling, no common patriotism. In Constantinople there is neither municipal government nor public opinion. Nobody knows what the Sultan's ministers are doing, or what is happening at the scene of war. Everybody lives in a perpetual vague dread of everybody else. The Turks believe that the Christians are conspiring with Russia to drive them out of Europe. The Christians believe that the Turks are only waiting for a signal to set upon and massacre them all. I thought these fears exaggerated; and though my friend and I were warned not to venture alone into St. Sophia, or through the Turkish quarters, we did both, and no man meddled with us. Indeed I wandered alone in the streets of Stamboul at night, and met no worse enemies than the sleeping dogs. But the alarms are quite real if the dangers are not; and one must never forget that in these countries a slight incident may provoke a massacre like that of Salonika. Imagine, if you can—you who live in a country where an occasional burglar is the worst that ever need be feared—a city where one-half of the inhabitants are hourly expecting to be murdered by the other half, where the Christian native tells you in a whisper that every Turk carries a dagger ready for use. It is this equipoise of races, this mutual jealousy and suspicion of the balanced elements, that makes it so difficult to frame a plan for the future disposal and government of the city. When, at some not very distant day, the Turk, or, as I should rather say, the Sultan, disappears from Constantinople, who is there to put in his place? We are all, whatever our political sympathies, agreed in desiring that it should not fall into the hands of any great military or naval state. And, what is more to the purpose, the Powers of Europe are so well agreed in their resolve to forbid that

issue, that the danger of a permanent Russian occupation may be dismissed as chimerical. But who, then, is to have this incomparable prize, this arbitress of war and commerce? Neither Greeks, nor Armenians, nor Bulgarians, are numerous enough to be accepted as rulers by the other two races. The elements out of which municipal institutions ought to be formed are wanting; and though each of these three peoples is no doubt more hopeful and progressive than their Mohammedan neighbors, none of them, has yet given indications of such a capacity for self-government as could entitle it to be intrusted with the difficult task of reorganising the administration of a bankrupt country, of developing its resources and maintaining order and justice.

Looking at the present state of the inhabitants of Constantinople, and their want of moral and social cohesion, one is disposed to think that organisation, order, reform, must in the first instance come from without, and that some kind of active intervention by the representatives of the European Powers will be needed to set a going any local government, and to watch over it during the years of its childhood. And there is another reflection of some political consequence which forces itself strongly upon one who gazes over the majestic avenue of the Bosphorus, with the steamers and caiques plying across it. It is this. The two sides of this avenue must obey the same government. The notion of treating these two shores differently, because we call one of them Europe and the other Asia, is idle and impracticable. A strait so narrow as this is really, what Homer calls the Hellespont, a river; and rivers, so far from being, like mountain ranges, natural boundaries, link peoples together, and form the most powerful ties of social and commercial intercourse. You might as well have Liverpool in the hands of one sovereign and Birkenhead of another, as give Constantinople to a Greek or Armenian government, while leaving Scutari and Chalcedon to the Sultan. Fancy custom-houses erected all along both shores, and every vessel visited, every passenger examined when he landed! Fancy a state of war, and hostile batteries firing across this mile or so of water, and destroying both cities at once!

Constantinople is not only a city that

belongs to the world; it is in a way itself a miniature of the world. It is not so much a city as an immense *caravanserai*, which belongs to nobody, but within whose walls everybody encamps, drawn by business or by pleasure, but forming no permanent ties, and not calling himself a citizen. It has three distinct histories—Greek, Roman, and Turkish. It is the product of a host of converging influences—influences some of which are still at work, making it different every year from what it was before. Religion, and all those customs which issue from religion, come to it from Arabia; civilisation from Rome and the West; both are mingled in the dress of the people and the buildings where they live and worship. Races, manners, languages, even coins, from every part of the East and of Europe here cross one another and interweave themselves like the many-colored threads in the gorgeous fabric of an Eastern loom.

Seeing the misery which Turkish rule has brought upon these countries, it is impossible not to wish for its speedy extinction. Indeed I never met any Frank in the East who did not take the darkest view of the Turks as a governing caste. Even the fire-eating advocates of "British interests" owned this. They insisted that the maintenance of the independence and integrity of the Ottoman Empire was so essential to ourselves that we must fight for the Sultan's government at whatever cost to his unhappy subjects. But they frankly confessed that it was not only a bad government, but an irreclaimable government, which could only be improved by being practically superseded. Premising all this, I am bound in turn to admit that the dominance of Mohammedanism adds infinitely to the rich variety and imaginative interest of the capital. Rome without the Pope is a sad falling off from the Rome of twenty years ago, and Constantinople without the Sultan and all that the Sultan implies will be a very different and a far less picturesque place, for it will want many of those contrasts which now strike so powerfully on the historical sense as well as on the outward eye. He, therefore, who wishes to draw the full enjoyment from this wonderful spot ought to go to it soon, before changes already in progress have had time to complete their vulgarizing work.

Already chimney-stacks pollute the air, and the whistle of locomotives is heard; already the flowing robes of the East are vanishing before the monotony of Western broadcloth. Before many years molahs and softas and dervishes may have slunk away; there may be local rates and Boards of Works, running long, straight streets through the labyrinth of lanes; a tubular bridge may span the Golden Horn, and lines of warehouses cover the melancholy wilds of Seraglio Point. Even the Turks have, of late years, destroyed much that can never be replaced; and any new master is sure to destroy or "re-store" (which is the worst kind of destruction) most of what remains.

The rarest and most subtle charm of a city, as of a landscape or of a human face, is its idiosyncrasy, or (to speak somewhat fancifully) its expression, the indefinable effect it produces on you which makes you feel it to be different from all other cities you have seen before. The peculiarity of Constantinople is that, while no city has so marked a physical character, none has so strangely confusing and indeterminate a social one. It is nothing, because it is everything at once; because it mirrors, like the waters of its Golden Horn, the manners and faces of all the peoples who pass in and out of it. Such a city is a glorious possession, and

no one can recall its associations or meditate on its future as he gazes upon it lying spread before him in matchless beauty without a thrill of solemn emotion. And this emotion is heightened, not only by the sense of the contrast, here of all the world most striking, between Mohammedanism and Christianity, and the recollection of the terrible strife which enthroned Islam in the metropolis of the Eastern Church, but also by the knowledge that that strife is still being waged, and that the shores which lie beneath your eye are likely to witness struggles and changes in the future not less momentous than those of the past. It is this, after all, that gives their especial amplitude and grandeur to the associations of Constantinople. It combines that interest of the future which fires the traveller's imagination in America, with that interest of the past which touches him in Italy. Other famous cities have played their part, and the curtain has dropped upon them; empire, and commerce, religion, and letters, and art, have sought new seats. But the city of two continents must remain prosperous and great when St. Petersburg and Berlin may have become even as Augsburg or Toledo, and imperial Rome herself have shrunk to a museum of antiquities.

JAMES BRYCE.

KEATS' LOVE-LETTERS.*

NOTHING in the literature of this century has been so much looked forward to and desired as these love-letters of Keats have been ever since they were first known to exist. Not Raphael's century of sonnets seemed so enviable a gift to the imagination as the very words spoken out of the heart of his sorrow and passion by the poet of poets. A subtle feeling of diffidence and shame, perhaps, was mingled with our desire, lest we were incurring Shakspeare's curse in stirring the ashes of this divine memory, in rudely intruding between these human lovers on no juster ground than the genius of one of them. It is a sickening thing to pander to mere base curiosity, to

outrage the sanctity of the interior threshold; to peep into the most sacred life of a great man is the peculiar fault of our age, and the best of us may sin in this respect unwittingly. But I think there is nothing dishonorable in the joy with which we welcome these dear relics of Keats; posterity can hardly despise us for the eagerness with which we hold out reverent hands to receive these last and most intimate memorials of that noble poet and great man. They relate to what happened nearly sixty years ago; hardly anyone, except Mr. Severn and Mr. Wells, can remember any of the persons concerned, and the lady herself, to whom these letters were addressed, expressed before she died, in 1856, her belief that they would be eventually required for publication. There has, therefore, been no indecent hurry in the matter, and Mr. Forman has displayed

* *Letters of John Keats, to Fanny Brawne.* Written in the years 1819 and 1820, and now given from the Original Manuscript, with Introduction and Notes by Harry Buxton Forman. New York: Scribner, Armstrong & Co.

in editing them a scrupulous care and a tasteful delicacy that will do him great credit. He is a bibliographer of genius, and on every obscure point he has patiently concentrated the light of investigation.

At the outset it will be a general matter of surprise to learn that the "Charmian" of Keats' letter of October 29, 1818, which has been universally supposed to be a portrait of Miss Brawne, proves in fact to be a lady of no consequence to Keats, a cousin of Reynolds, the author of *The Garden of Florence*. This being ingeniously proved by Mr. Forman, we pass on to December of the same year, when, in a letter to his brother George, he describes very minutely and freely a Miss —, who seems without doubt to be the real object of his passion. As far as we can gather, then, it was in that month that he met, and in a week or two fell in love with and was betrothed to, the lady who ruled his whole spirit till he died. Miss Frances Brawne was five years his junior, being born on August 9, 1800. The three women who controlled the fate of Keats—his mother, his sister, and his *fiancée*—all bore the name of Fanny. In several of the letters before us, Keats extols her beauty: a very clever and characteristic silhouette here reproduced hardly suggests beauty in the truest sense, but elegance, vivacity, a fine air of distinction, and a prettiness that might have seemed to jealous eyes too like the conscious charm of a coquette.

It is to be lamented that these letters give us no insight into the happy and prosperous period, the only one in the poet's life, lying between December 1818 and July 1819. Almost immediately upon the death of his brother Tom, this happy love-affair stepped in and consoled him. He went to live in Wentworth Place, at Hampstead, a block of two houses with gardens before and behind, one of which houses the Brawnes, mother and daughter, rented of Mr. Dilke, while the other Keats and C. A. Brown, the Russia merchant, shared between them. I must briefly refer the reader to an appendix in which the whole history of Wentworth Place is minutely recorded. Suffice it to say that these two houses formed a delicious retreat in which the first six months of Keats' love-life seem to have passed in real happiness. The betrothed lovers were able to visit one another daily; they enjoyed the luxury of long walks, and Keats

wrote poetry with a freedom and an ardor almost unparalleled. In December, 1818, he had begun *Hyperion*. In January he wrote *Isabella*. February, 1819, the most prolific month of Keats' life, produced the *Ode to Psyche*, the *Eve of St. Agnes*, and much of *Hyperion*. Early in the spring he wrote—under a plum-tree in the Brawnes' garden, apparently—the *Ode to a Nightingale*. In short, all his most accomplished and least mannered work dates from this half-year, when he was taking long walks with Fanny, and enjoying, if not robust, at least fair health. Not a single love-letter of this period exists: living side by side they had no need of letters. But in July he went away for a holiday to the Isle of Wight, when he and Brown, "Idle Jack and Sauntering Joe," set themselves to write *Otho the Great*; and it was on this occasion that he wrote the first love-letter we possess. From July 3 to August 9, 1819, he writes four times from Shanklin: there was no post-office in the village in those days, and letters had to go to Newport. He writes happily at first. How shall he escape the formality of the letters in the *Nouvelle Héloïse*? "I want a brighter word than bright, a fairer word than fair." He answers thus characteristically to an objection of hers:—

"Why may I not speak of your Beauty, since without that I could never have lov'd you? I cannot conceive any beginning of such love as I have for you but Beauty. There may be a sort of love for which, without the least sneer at it, I have the highest respect and can admire it in others; but it has not the richness, the bloom, the full form, the enchantment of love after my own heart."

Already in the third letter there comes in that note of jealousy which makes the whole of this correspondence doubly moving and painful. He is burningly anxious to extort from her vows of constant devotion. For himself, without any illness, he is vaguely prescient of physical misfortune. "I have two luxuries," he says, "to brood over in my walks, your Loveliness, and the hour of my death. O that I could have possession of them both in the same minute." By August 16, he is glad to be in Winchester; he is tired of the view at Shanklin, tired of the old lady over the way, and the stolid fisherman and the little black teapot with a knob; in Winchester he has the delight of walking up and down the aisles of the Cathed-

dral, during service, and reading Fanny's letters there.

It is evident all this time that these same letters from Miss Brawne give him in his nervous condition more pain than pleasure. He reads them again and again until each sentence attains a false importance, and all seems too cold or too reproachful. She, on her part, finds it hard to bear with the exacting passion of so strange a lover. When he comes up to town and, after spending more than three days in London, returns to Winchester without visiting her at Hampstead we feel that it required much tenderness and much tact to enter into the fantastic self-torturing scruples of an only too-infatuated lover. In October 1819 he returns to London, and we have two exquisite letters, the most sunny and quiet of the whole series, written from those lodgings in College Street, Westminster, which Mr. Dilke had chosen for him. He seems to bask in the warmth of her recovered presence, for they are now within a not-impossible daily journey of one another. This first epoch closes with a note of October 19 announcing his intention to come up to Hampstead for good.

There now follows a series of twenty-two letters of which not one is dated, and which have no guiding postmark, as they were sent by hand from one house to the other in Wentworth Place. Between the earliest of them and the last posted letter there extends an interval of a little less than four months, during which time the lovers lived in adjoining houses, and enjoyed a daily intercourse of walks and conversation. George Keats had paid a short visit to England, a visit disastrous—in a way difficult for us to understand—to his brother's finances. Keats was in a very different intellectual condition from the brilliant productiveness of the winter before; he was writing little but his unfortunate *Cap and Bells*. It is plain that he was uncomfortable and apprehensive; no doubt the coming disaster threw its shadow forward across his hopes. On February 3 he returned home in that strange condition of excitement which Lord Houghton has so vividly described, coughing up arterial blood and "reading in the color his death-warrant." He kept his bed a week, and during the slow, partial recovery that followed he wrote Fanny Brawne these twenty-two notes.

NEW SERIES.—VOL. XXVII., No. 4

Most of them are very short; they vary with the vacillations of feeling brought about by the phases of the terrible disease. Some are playful, even hopeful; some are fiercely jealous and suspicious; all breathe the same changeless and devouring passion. There is a tear-compelling pathos in such passages of enforced resignation as this:—

"You know our situation—what hope is there if I should be recovered ever so soon—my very health will not suffer me to make any great exertion. I am recommended not even to read poetry, much less write it. I wish I had even a little hope. I cannot say forget me—but I would mention that there are impossibilities in the world. No more of this. I am not strong enough to be weaned—take no notice of it in your good night."

He writes no poetry, he is "as obstinate as a robin," and will not sing in a cage. He complains that his mind is too large and restless for his small body, and will destroy it. He constantly entreats her to come for half a minute to the window from which he can see her, or to walk a few steps in the garden. After a while he begs her not to come to see him every day—he cannot always bear it. But if she does not come he is jealous and uneasy. These letters grow darker and more painful as the end approaches. But still he tries to brighten up, and relies on taking a walk with her on May 1. And here comes another lapse in the correspondence. Keats so far recovered as to be able to get out and about, so that there was again no need of letters between the lovers, and on May 7 he was able to go down to Gravesend to see Brown off on his voyage to Scotland. During the months of June and July he was at Kentish Town with Leigh Hunt, and from this period dates the third and last section of the correspondence. Of these four last letters little can be said except that they are almost too heartrending, too appalling to be laid before an indifferent public. We see this passionate character reduced to the helplessness and frenzy of a child that thinks itself forgotten. In the misery of his condition, Keats rails against all his friends indiscriminately; his fancy conjures up before it all the torturing spectres that jealousy and love can engender on a brain weakened with suffering. He says, in the phrase of his own great poem, that all his life since his betrothal tastes like brass upon his palate. This fretful agony

of the spirit culminates in the last letter, after which his beloved and her mother would no longer entrust him to a friend, but brought him back to their own house in Wentworth Place, where he stayed a month before proceeding to Italy.

Without dwelling too much on the painful feature of this book, the reiterated suspicion and at last the seeming hatred of the poet for his generous friend Brown, whom he declares with sad prophetic truth, Cassandra-like, that he will never set eyes on again, it may be well to remind all readers that this was merely a fretful form of speech, and that Keats never did actually sever the bond of affection between himself and Brown. In the face of Letter XXXV., written no doubt in June, 1819, we ought to read the letter of September 28 of the same year, in which, writing most affectionately to Brown from off the Isle of Wight, he commends Miss Brawne to Brown's care and affection (*Life and Letters*, 1848, ii., 74). This was a day or two after the composition of "Bright Star!" his last sonnet, in which he addressed his beloved for the last time in prose or verse.

The style of these letters is very simple and unaffected. There is no striving after rhetorical or even literary effect. They are careless and unstudied, but whenever the writer takes fire, and that is constantly, he attains unconsciously a classical grace and delicacy. Writing as he does to a girl, and one without lettered tastes, he avoids much mention of books, and he copies none of his poems into his notes, as he was fond of doing in addressing male correspondents. He says he cannot write in the stilted style of the *Héloïse*, and on one occasion he says: "What would Rousseau have said at seeing our little correspondence? What would his

ladies have said? I don't care much. I would sooner have Shakespeare's opinion about the matter." Once he is marking Spenser for her reading; but such references to books are rare. Sometimes his tone is almost boyish in its gaiety, as when he tells her that he has dropped some currant-jelly on to Brown's Ben Johnson, and cannot get out the purple mark, though he has licked it again and again. Once he speaks to her about his hopes of future fame in these memorable words:—

"If I should die, I have left no immortal work behind me, nothing to make my friends proud of my memory; but I have loved the principle of beauty in all things, and if I had had time I would have made myself remember'd."

There will be much speculation on the personal character of Miss Brawne, but this is hardly a subject to be treated here. Yet a word should be said on the necessity of reading between the lines in these passionate utterances of her poet. There is plenty of evidence of her tenderness and loyalty: that she understood that in this dying lad, without fame or fortune, she held one of the greatest creative geniuses of all time, is not for a moment to be supposed. Her nature is exposed to a cruel test in being measured by the side of his. But she seems to have been a womanly and charming creature, who loved the man Keats for himself, and remained true to him through all his suffering. If we observe the face drawn by Mr. Severn, and etched by Mr. W. B. Scott, which forms the frontispiece of this work, and which in its exhaustion and agony looks like that of an Apollo subdued to the revenge of Marsyas, we shall rather wonder that she endured the fiery ordeal so well than reproach her for want of reverence for the memory of days too painful to be reconsidered.—*The Academy*.

CHANGES OF COLOR IN THE CHAMELEON.

FROM very ancient times the curious changes of color which take place in the chameleon, and its supposed power of living on air, have been the wonder of the uninformed, and have furnished philosophers and poets with abundant material for metaphor. The belief that the animal can live on air has been exploded long ago, and was no doubt due to its

power of long fasting and to its peculiar manner of breathing. It is only quite lately, however, that any satisfactory explanation has been given of the apparently capricious changes which take place in the color of the chameleon; the latest researches on the subject being those of M. Paul Bert, the French naturalist, which have been described in a

recent paper by M. E. Oustalet. As most of our readers are no doubt familiar with the appearance and figure of this curious reptile, and as descriptions of it may be found in any encyclopædia or elementary work on natural history, we do not consider it necessary to repeat them here.

Many and various theories have been proposed to explain the changes of color which chameleons undergo; changes the importance of which have been greatly exaggerated. It is generally believed that these animals have the power of assuming in a few seconds the color of any neighboring object, and that they intentionally make use of this trick to escape more easily from the sight of their enemies. But this opinion is erroneous; and experiments conducted with the greatest care have proved that chameleons are incapable of modifying their external appearance in anything like so rapid and complete a manner.

The first probably to give any rational account of the causes of the puzzling changes of color in these reptiles was the celebrated French naturalist, Milne-Edwards, about forty years ago. After a patient and minute examination, he discovered that the coloring matters of the skin, the pigments, are not confined as in mammals and birds, to the deep layer of the epidermis, but are partly distributed on the surface of the dermis or true skin, partly located more deeply, and stored in a series of little cells or bags of very peculiar formation. These color-cells are capable of being shifted in position. When they are brought close to the surface of the outer skin, they cause a definite hue or hues to become apparent; but by depressing the cells and causing them to disappear, the hues can be rendered paler, or may be altogether dispersed. It is noteworthy that the cuttle-fishes change color in a similar manner.

Underneath the color-bags (or *chromoblasts* as they are called) of Milne-Edwards, Pouchet, a recent inquirer, has discovered a remarkable layer, which he calls *cærulescent*, and which possesses the singular property of appearing yellow on a clear, and blue on an opaque background.

M. Paul Bert, within the last two years, has by his researches thrown still

further light upon these curious changes, and upon the mechanism by which they appear to be accomplished. He endorses most of the results of Milne-Edwards and subsequent inquirers, but has carried his observations much further. It would be out of place here to give a detailed account of the methods by which M. Bert has arrived at his conclusions. Suffice it to say, that by a series of careful experiments, he has discovered that these changes of color seem to be entirely under the control of the nervous system, and that the chameleon can 'no more help them taking place than a toad can help twitching its leg when pinched. By acting in various ways upon the spinal marrow and the brain, the operator can send the color to or withdraw it from any part of the body he pleases. Indeed a previous observer was able to cause a change of color in a piece of the skin of the animal by acting upon it with electricity; and M. Bert has proved that even in the absence of the brain the usual changes can be produced by exciting the animal in any way; thus showing that they are due to that class of nervous action which physiologists name *reflex*, and of which sneezing is a good example. M. Bert has also made some interesting experiments on the animal while under the influence of anæsthetics and during sleep. It was formerly known that in the latter case, and also after death, the chameleon assumed a yellowish color, which under the influence of light became more or less dark. M. Bert has found that exactly the same effects are produced during anæsthesia as during natural sleep, and that light influences not only dead and sleeping chameleons, but that it modifies in a very curious fashion the coloration of the animal when wide awake. The same result is produced when the light is transmitted through glass of a deep blue color, but ceases completely when red or yellow glass is used. To render these results more decisive, M. Bert contrived to throw the light of a powerful lamp upon a sleeping chameleon, taking care to keep in the shade a part of the animal's back, by means of a perforated screen. The result was curious: the head, the neck, the legs, the abdomen, and the tail became of a very dark green; while the back appeared as if

covered with a light brown saddle of irregular outline, with two brown spots corresponding to the holes in the screen. Again, by placing another animal, quite awake, in full sunlight, with the fore-part of its body behind a piece of red glass, and the hind-part underneath blue glass, M. Bert divided the body into two quite distinct parts—one of a clear green with a few reddish spots, and the other of a dark green with very prominent spots.

From his researches as a whole, M. Bert concludes: 1. The colors and the various tints which chameleons assume are due to changes in the position of the colored corpuscles, which sometimes, by sinking underneath the skin, form an opaque background underneath the cærulescent layer of Pouchet; sometimes, by spreading themselves out in superficial ramifications, leave to the skin its yellow color, or make it appear green and black. 2. The movements of these color-bags or chromoblasts are regulated by two groups of nerves, one of which causes them to rise from below to the surface, while the other produces the opposite effect.

As to the effects produced by colored

glass, they no doubt result from the fact that the colored corpuscles, like certain chemical substances, are not equally influenced by all the rays of the spectrum, the rays belonging to the violet part having alone the power of causing the color-bags to move and drawing them close to the surface of the skin. This exciting action of light on a surface capable of contraction, an action which hitherto has only been recognized in the case of heat and electricity, is one of the most unexpected and curious facts which in recent times have transpired in the domain of physiology. Hence M. Paul Bert's researches are likely to prove of far more value than merely to explain the changes of color which take place in the chameleon. He hopes especially in carrying out his researches to discover the reason of the favorable influence on health which is exerted by the direct action of light on the skin of children and of persons of a lymphatic temperament; and this may lead to some very important practical results in the treatment of disease. In the meantime he has done much to clear up a very puzzling and very interesting fact.—*Chambers's Journal*.

THE PAGES OF THE PAST.

BY ANNIE THOMAS.

1.

In the volume of my memory, I hold those chapters dearly
Wherein names I've loved and cherished are inscribed from first to last;
And I never read these chapters very audibly or clearly,
For my heart beats all too quickly o'er these pages of the past.

2.

Here's the little dog who bit me in a fit of puppy-gladness
In my days of early childhood, when that little dog was dear,
To my grief he fell a victim to parental dread of madness,
And still his fate demands from me the tribute of a tear.

3.

Here's my little schoolboy lover, with his water-spaniel Rover,
Astride his pony Fidget, with his satchel-bag of green;
Did I love the dog and pony best? or really love the lover?
Why ask? *He* died in India in the service of the Queen.



Engraved for the Editors by J. J. Cole, New York.

PROF. O. C. MARCH.

(YALE COLLEGE)

4.

Here's a later-on edition of the same eternal story,
Of a wooing and a winning, of a parting and a vow,
Of a woman's truth in absence, of a love renounced for glory,
Of such pain and faith and tenderness, I marvel at it now!

5.

Here's another buried treasure!—my own faith in human kindness.
It died hardly, I remember, but die it did at last.
I clung to it with passion, and I wept its loss to blindness,
I view its grave with sorrow in these pages of the past.

6.

Here the parents who departed, full of years and grace and honor;
Here the gallant sailor brother drowned at sea in manhood's prime.
Here the little sons who left me to return to God the donor
In safety through Eternity, while I'm wearying through time.

—Temple Bar.

PROFESSOR MARSH.

BY THE EDITOR.

• OTHNIEL CHARLES MARSH, one of the most famous of American naturalists and men of science, was born at Lockport, New York, on the 29th of October, 1831. He was educated partly at Phillips Academy, Andover, Mass., and partly at Yale College, where he graduated in 1860. The two years following his graduation he spent in the Yale Scientific School, and from 1862 to 1865 studied at the universities of Berlin, Heidelberg, and Breslau. On his return to America in 1866 he was elected Professor of Palæontology in Yale College, a position which he has filled ever since with honor to himself and to the institution.

His scientific publications, which began while he was a student, have been very numerous and varied. Among his earlier papers, most of which appeared first in the *American Journal of Science*, are: "The Gold of Nova Scotia" (1861); "Description of New Enaliosaurian, *Eosaurus Acadianus*" (1862); "Description of an Ancient Sepulchral Mound" (1867); "Contributions to the Mineralogy of Nova Scotia" (1867); "Origin of Lignilites or Epsomites" (1867); "Metamorphosis of Siredon into Amblystoma" (1868); "Notice of New Mesasauroid Reptiles from New Jersey" (1869); and, "Notice of New Fossil Birds from the Cretaceous and Tertiary of the United States" (1870).

For a number of years past Professor

Marsh has devoted himself to investigating the extinct vertebrate animals of the Rocky Mountain region, especially those of the Cretaceous and Tertiary formations. Since 1868 he has nearly every year led an expedition to regions never before visited by white men. These expeditions have been remarkably successful, more than three hundred species of new fossil vertebrates having been discovered, of which he has already described upwards of two hundred. Many of these extinct animals are of great scientific interest, and represent several new orders, as well as a number of others not previously found in America. Among these are the *ichthyornithes*, a new order of Cretaceous birds, having teeth and biconcave vertebrae; the *dinocerata*, gigantic Eocene mammals with six horns; the *brontotheridae*, huge Miocene mammals with a single pair of horns; the first American pterodactyls, or flying lizards, some having a spread of wings of twenty-five feet; and likewise the first fossil monkeys, bats, and marsupials from this country. In his unrivalled palæontological museum at New Haven, he has brought together what Professor Huxley, in his famous New York Lectures, pronounced the first "demonstrative evidence of Evolution," and his collection of fossils is one of the richest and most valuable in the world. All the above-mentioned and many other discoveries have been de-

scribed by Professor Marsh in a series of papers and lectures published at intervals since 1871; and he is understood to be engaged at present upon an extensive

Report, in which full descriptions, with illustrations, of all his Western discoveries will be published under Government auspices.

LITERARY NOTICES.

POPULAR ASTRONOMY. By SIMON NEWCOMB, LL.D. New York: *Harper & Brothers*.

There can be no doubt that one of the most efficient causes of the firm hold which the facts and methods of science have taken upon the public mind is to be sought in the superior ability and authority of the class of writers who have undertaken to simplify and popularize them. In most other departments of learning, the supplying of popular works has usually been left to "compilers" and "booksellers' hacks," or to authors with a new scheme or crotchet; but such scientific luminaries as Huxley, and Tyndall, and Roscoe, and Lockyer, have not hesitated to suspend their more important labors in order to prepare even elementary works in their special fields of investigation, and there is certainly no other branch of human knowledge that can exhibit such a popular literature as science has produced during the last twenty or thirty years. It is no slight praise, therefore, to say of Professor Newcomb's "Popular Astronomy" that it is one of the best expositions of an important but difficult and abstruse subject that has yet been offered to the non-scientific reader.

As explained by the author, the work is not designed either to instruct the professional investigator or to train the special student of astronomy; but "to present the general reading public with a condensed view of the history, methods, and results of astronomical research, especially in those fields which are of most popular and philosophic interest at the present day, couched in such language as to be intelligible without mathematical study." This aim, it must be confessed, is not literally fulfilled, for a large portion of the first two of the four parts into which the work is divided can only be understood by those possessing at least clear ideas of geometrical relations and considerable power of sustained thinking; but the truth is, that the higher problems of astronomy can only be approached through mathematics, and any reader who is not well grounded in the latter will have to take for granted many of the steps in a thoroughly scientific exposition like that of Professor Newcomb. No doubt the path is made as smooth and as straight as possible, but for the same reason that an idea of color cannot

be lodged in the mind of a person born blind, the majestic mysteries of the heavens and the vast inductions of astronomy cannot be explained to one whose mathematical training has been limited (say) to arithmetic, or whose knowledge of geometry is vague and superficial.

The method of exposition adopted by Professor Newcomb is, in the main, historical. He begins with an analytical sketch of the history of astronomical research from the days of Hipparchus to Newton's discovery of universal gravitation; and, as he adopts the nebular theory, his entire work may be compendiously described as an outline history of the solar system, and presumably of the stellar universe. Even in treating of "Practical Astronomy" (which is the title of the second part of his work), he relates the history of the various astronomical instruments—the telescope, the spectroscope, and the transit circle—before explaining their construction and modes of use; and in elucidating the various theories that have been proposed for the solution of particular problems, he generally arranges them in their due historical order. This is undoubtedly the true method of expounding any science, for the most intelligible explanation of a given discovery is a clear statement of the successive steps that led up to it; but it is especially appropriate to astronomy. "In no other science," says Professor Newcomb, "has each generation which advanced it been so much indebted to its predecessors for both the facts and the ideas necessary to make the advance. The conception of a globular and moving earth pursuing her course through the celestial spaces among her sister planets, which we see as stars, is one to the entire evolution of which no one mind and no one age can lay claim. It was the result of a gradual process of education, of which the subject was not an individual, but the human race."

The descriptive portions of the work are particularly admirable, and we know of no equally satisfactory and complete account of the solar system as a whole, and its individual members, and of that stellar universe revealed to us by the telescope, in comparison with whose immensity the sun and all his family is but a grain of "cosmic dust." All the aids to the description that can be derived

from pictures and charts are copiously furnished; and there are five star-maps, showing the constellations, and including all the stars that can be seen with the naked eye in our latitude. For the use of students and amateur astronomers a number of tables and special articles are brought together in the Appendix, and a glossary of technical terms obviates any inconvenience which their occasional use may cause the general reader.

THE NARRATIVE OF A BLOCKADE-RUNNER.

By J. WILKINSON, Captain in the late Confederate States Navy. New York: *Sheldon & Co.*

Few would-be authors obtain such judicious advice from their friends as that which Captain Wilkinson quotes from the letter of a literary gentleman to whom he had submitted the plan of his work: "I am particularly glad," writes this gentleman, "believing as I do that such a volume will help to the production of that state of mind, North and South, which every good man wishes to see grow. It is only necessary that we shall all fall into the habit of talking and writing about war matters without feeling; that we shall forget the bitterness of the conflict in our interest in its history; and if you or I can amuse Northern readers, or entertain them with our recollections, we shall certainly leave them in a pleasanter and better state of mind than we found them in." It is too early, doubtless, to look for a really impartial and adequate history of the late Civil War—the passions and prejudices and animosities aroused by it have not as yet subsided into that calm which is the necessary atmosphere of the historian—but the practice on the part of writers of treating its incidents as so many facts of history will undoubtedly contribute more than any other agency to the rooting out of all those partisan, sectional, and personal feelings which still enter more or less strongly into our memories of it. Another consideration in favor of such books is that they supply material which will be indispensable to that historian who in the years to come shall furnish our children with a just, accurate, and philosophic survey of our great struggle. Those who actually participate in an exciting conflict can seldom be trusted to make up its final record, and yet that final record can be nothing more than a cold analysis of causes and a pallid picture of external events if the participants fail to leave a transcript of their personal experiences and observations. Such works as Captain Wilkinson's may be described as the raw material of history; and, regarded from this point of view, they have a permanent value quite independent of their attractiveness as current literature.

"The Narrative of a Blockade-Runner" is among the most entertaining and suggestive books of its kind that we have had from a Southern pen. Blockade-running was one of the most characteristic and picturesque episodes of the war, and Captain Wilkinson was among the most noted and successful of those engaged in it. In command of a staunch and swift steamer purchased by the Confederate Government in Scotland, he ran into Wilmington from Nassau, or Bermuda, nearly twenty-five times, and was afloat when the capture of Charleston and the sealing up of the last Southern port brought all such enterprises to a peremptory close. That his success was largely due to his daring as a commander, combined with his skill in seamanship, is proved by the fact that the vessel in which he had made twenty-one successful voyages was captured on her first trip after he had given up the command; and it seems a pity that some more honorable (there could hardly have been more important) employment was not found for so capable an officer. Had it been otherwise, however, we should probably have lost a highly enjoyable book. Captain Wilkinson's adventures were various, and he describes them in a rapid, picturesque, and lively style—with too conscious an effort at literary effect, perhaps, but, on the whole, in a manner becoming "an officer and a gentleman." The chief blemish in the work is the needless intrusion of the controversy about the Southern treatment of Federal prisoners; but it is to be expected that the brave and manly soldiers of the South should be exceptionally sensitive to the worst accusation that has been brought against them in connection with the Civil War.

Before parting with Captain Wilkinson, we should observe that besides the blockade-running experiences, which furnish the main theme of his book, he throws valuable light upon at least one other conspicuous incident of the war. He was present at the passage of the Mississippi forts and the consequent capture of New Orleans by Farragut's fleet, and describes that memorable achievement from a new point of view. In preparing his narrative of it he had access to the Confederate Commodore Mitchell's official report—an important document never published, and never hitherto consulted, we believe, by any one who has written on the subject.

POTTERY. How it is Made; Its Shape and Decoration: Practical Instructions for Painting on Porcelain and all Kinds of Pottery. By GEORGE WARD NICHOLS. New York: *G. P. Putnam's Sons.*

For a compendious and fairly accurate statement of the aims and character of this

manual we cannot do better than quote Mr. Nichols' concise preface. "It is the object of this book," he says, "to show that the manufacture of Pottery may become one of the great art industries in the United States; to describe the laws which govern the form and decoration of pottery; and to give practical instruction in the art of painting, either with vitrifiable or common oil colors, upon hard or soft porcelain or upon earthenware. It is the result of long and careful study, and is intended not only for the benefit of professional potters and decorators, but for that large class of persons who are seeking to acquire this art, either for entertainment or as a remunerative occupation."

The descriptive portions of the work, though somewhat desultory, supply just the information which is indispensable to those who are unacquainted with the methods and history of the art; and the directions are the most specific and practical that we have yet seen in a work designed for amateurs as well as professional students. With it, and some preliminary knowledge of the elements of drawing, the reader would probably be able, without further instruction, to accomplish quite satisfactory results; and for such as desire a further acquaintance with the literature of the subject, there is a very full bibliography of the standard works upon the ceramic art in all languages. The volume is issued in extremely tasteful style, and, besides a number of beautiful wood-cuts illustrating the various periods and manufactures, contains several charts of Japanese designs for the decoration of pottery, printed in colored ink. A few such practical manuals will do more to promote the development of this important and beautiful industry among us than whole libraries of critical, descriptive, or historical treatises upon pottery.

LIFE AND TIMES OF THOMAS BECKET. By JAMES ANTHONY FROUDE, M.A. New York: Scribner, Armstrong & Co.

In a handsome volume, uniform in style with their library edition of Froude's history and essays, the Messrs. Scribner have collected the papers on Becket which Froude contributed to *The Nineteenth Century*, and which were reproduced in recent numbers of the *ECLECTIC*. No changes appear to have been made in the articles as originally published, with the possible exception of a few additional notes and some verbal revisions, and it is to be regretted that in putting them into permanent shape neither author nor publishers thought it worth while to provide them with an index or an analytical table of contents. The division into chapters is but a slight improvement upon the original arrange-

ment, and in a book we have a right to expect a greater attention to the permanent needs of the student than in papers written for the transient uses of a periodical. For the rest, as our readers are already familiar (it is to be presumed) with the contents of the work, we need only say that it is a profoundly interesting historical and character study, and deals conclusively with one of the most significant episodes in English history. The fiercest partisanship has raged around the life and character of Thomas à Becket (as he is usually called), and it has been exceedingly difficult to decide whether he was a saint or a rascal. In this brief biography Mr. Froude floods the whole period with light, and while Becket's admirers will doubtless appeal from the verdict passed upon him, the dispassionate reader will be apt to feel that the haughty and wily ecclesiastic has at last been brought to the judgment-bar of impartial history. In style and manner the work is charming, and presents all Mr. Froude's good qualities at their best.

THE HONORABLE MISS FERRARD. A Novel.

By the author of "Hogan, M.P." Leisure Hour Series. New York: Henry Holt & Co.

The Honorable Miss Ferrard is perhaps the queerest "daughter of a lord" that ever figured in fiction, and would be impossible to any story of which the scene was laid elsewhere than in Ireland; but the portrait of her as drawn here has a striking air of *vraisemblance* as well as an unmistakable local flavor, and the novel to which she gives her name is one of the breeziest, liveliest, and most piquant that we have read for a long time. For one thing, it does not belong to the "psychological school," of which the sole interest lies in intricate "character-study," but has incident and movement and animated narrative as well as portraiture. The story is interesting merely as a story, and at every stage the reader is kept in a sort of eagerness to know what is to come next, and what the end will be. The only drawback to entire satisfaction with it is that Irish politics are rather too prominent for American taste; yet the inherent lack of interest in these is almost compensated by the piquancy with which they are presented, and no doubt the picture of social life in Ireland at the present day, which the book is intended to furnish, would have been incomplete without them. At any rate, the book is readable from beginning to end, and even those who have ceased to venture upon the wide waste of current fiction would probably get a long evening's enjoyment from it.

FOREIGN LITERARY NOTES.

M. BARTHÉLEMY ST-HILAIRE will publish in the course of this year his translation of the *Metaphysics* of Aristotle, in three volumes.

THE *Hornet* says the *Graphic* and the *Illustrated London News* have given £400 apiece for the right of reproducing Mr. H. M. Stanley's African sketches.

MR. WILLIAM BLACK will contribute a volume on Goldsmith to Messrs. Macmillan & Co.'s forthcoming series of "English Men of Letters," edited by Mr. John Morley.

M. MARIETTE, the eminent Egyptologist, is at present in Paris, and, we regret to add, seriously ill. He is not expected to return to Boulaq until after the Paris Exhibition.

A DANISH translation of Dr. Elze's "Life of Sir Walter Scott" is appearing in parts at Copenhagen. A Danish version of the same writer's "Life of Lord Byron" was published last year.

MR. STANLEY has chosen the following as the title of his forthcoming account of his African travels, "Through the Dark Continent; the Sources of the Nile; Around the Great Lakes; and Down the Livingstone River."

WE understand that Prof. Schlottmann's voluminous book on the Moabite potteries at Berlin, is far advanced toward completion, and that the learned public will soon be gratified with his defence of the genuineness of the contested inscriptions.

THE publisher of Victor Hugo's *Chansons des rues et des bois* and of his *L'Homme qui rit* has become bankrupt. Before the court he gave as explanation that he had over-estimated his author's value, and had paid him no less than 360,000 francs for these two works. *Hinc ille lachrymæ.*

THE English Index Society have in hand a students' guide to the literature of political economy, and a similar hand list for the students of botany. An index of portraits in Great Britain is also being prepared, as well as an index of British existing, dormant, and extinct titles of honor.

THE interest recently shown by Italians in German literature is remarkable. They are constantly issuing translations of both modern and classical German authors. The poet Robert Hamerling's epic poem, *Ahasuerus in Rome*, has just been translated for the third time into that language.

It appears by an official notification issued at Leipsic that the total number of new German (*i.e.* published in Germany, Austria, and Switzerland) works and new editions published during 1877 and entered on the official

Booksellers' Register at Leipsic was 16,437, being the highest yet reached in any year.

THE prize essay on "Tea Cultivation and Manufacture," by Lieut.-Col. Edward Money, which won the Grant gold medal in India, is about to be reprinted in England by Messrs. W. B. Whittingham & Co. The original essay has been revised and much enlarged, and will be issued as a demy 8vo volume of 200 pages, with tables and addenda upon the management of tea gardens and tea manufactories.

THE Madrid *Gazette* contains a tremendous list of decorations given on the occasion of the royal marriage, for what are said to be scientific and literary services. Every editor of a paper in Madrid has received the grand cross or commandery of Isabella the Catholic, and among the other recipients are a distinguished musical critic, a large body of professors and inspectors of schools, a score of poets and literary men, one painter, and one musician.

A RICH collection of Goethe's, Schiller's, and Herder's autographs has been discovered by Herr Preller, at Scheubengröbsdorf, among the papers of his deceased father. The manuscripts by Schiller include the "Räuberband," the "Götter Griechenlands," "Räthsel," &c., and of the other authors equally interesting papers, including many variants from the established text. The collection also contains several valuable letters from friends and correspondents of Schiller.

ALL admirers of the great novelist's works will be glad to learn that the publication of the long-rumored *édition de luxe* of Thackeray's works is to be commenced by Messrs. Smith, Elder & Co. in June next. It is understood that only a limited number of copies will be printed. This edition will be in twenty-two volumes, large super-royal 8vo. The whole of the original illustrations—both the steel plates and the large and small wood-cuts—will be printed on real India paper; while new illustrations by eminent artists will be added. The letter-press will be printed by Messrs. Clay, Son & Taylor from new types, and the steel plates by Messrs. M'Queen.

THE first number of a journal devoted exclusively to physiology will be immediately published by Messrs. Macmillan & Co. It is to be called the *Journal of Physiology*, and will be edited by Dr. Michael Foster, F.R.S., with the co-operation of Professors Gamgee (Manchester), Rutherford (Edinburgh), and J. B. Sanderson (London), in Great Britain, and of Professors Bowditch (Boston) and Martin (Baltimore), in America. Most of the papers published in it will refer to experimental physiology, but it is intended that the journal shall

also serve as a record of researches on the physiological action of medicines and poisons, and of physiological interpretations of pathological phenomena.

Was it the custom for women to serve as soldiers in the Royal army during the great rebellion? Notwithstanding such doubtful cases as those of the Countess of Derby and Lady Bankes, we imagine most people would answer without hesitation, No. Yet there is one undoubted example of a lady holding a commission to command a troop of horse. Among the Montrose papers preserved at Buchanan Castle is the deposition of a certain Major John Erskine, who says that, some time in or before 1644, "one Mistress Persone, who was a daughter of the Earl of Carnwath, had charge of a troop and had a commission from the Earl of Newcastle for levying that troop." The evidence of a Major Leslie taken about the same time confirms this. He tells us that Mrs. Persone—or, as he calls her, Peirson—"always rode at the head of a troop." These papers are calendared in the "Second Report of the Royal Commission on Historical Manuscripts," p. 174.—*Academy*.

SCIENCE AND ART.

SUN-SPOTS, RAINFALL, AND FAMINE.—Two official papers published in India further discuss the question—sun-spots and rainfall. 'The Cycle of Drought and Famine in Southern India' contains a statement of the argument by Dr. W. W. Hunter, and the conclusions to which he has arrived. These are: 'That although no uniform numerical relation can be detected between the relative number of sun-spots and the actual amount of rainfall, yet that the minimum period in the cycle of sun-spots is a period of regularly recurring and strongly marked drought in Southern India; that apart from any solar theory, an examination of the rain registers shows that a period of deficient rainfall recurs in cycles of eleven years at Madras; . . . that the statistical evidence shows that the cycle of rainfall at Madras has a marked coincidence with a corresponding cycle of sun-spots; . . . and that the evidence tends also to show that the average rainfall of the years of minimum rainfall in the said cycle approaches perilously near to the point of deficiency which causes famine.' The average is, however, above that point; and though droughts and famines may recur in the cyclic years of minimum rainfall, the evidence, in Dr. Hunter's opinion, is insufficient to warrant the prediction of a regularly recurring famine. The observations on which these conclusions are founded include sixty-four years of the present century: too

short a period on which to build a theory; but as no records exist earlier than 1810, it is by future observation only that the conclusions can be tested. Meanwhile meteorological observers will be watchful, especially of the rainfall, for India is a country which affords singularly favorable opportunities for a comprehensive system of observations. The other paper referred to above is by Mr. H. F. Blanford, Meteorological Reporter to the government of India. He points out that Dr. Hunter's views apply exclusively to Southern India, and that in Northern India famines are most frequent at the epochs of most sun-spots. This lack of agreement between two competent authorities shows how great is the need for a lengthened series of observations.

WHY SALTED MEAT IS UNWHOLESOME.—Professor Galloway, of the Royal College of Science, Dublin, has published a pamphlet in which he states that salted meat is unwholesome, and produces scurvy, because by the process of salting the meat is deprived of important constituents, notably phosphate of potash. He says that if this salt were eaten with the beef served out on board ship, the meat would be nutritious, would not occasion scurvy; and he calls on the Admiralty to test his view by actual experiment.

ARCTIC FOSSIL PLANTS.—In the recent Arctic Expedition twenty-five species of fossil plants were discovered in Grinnell Land by Captain Feilden. They are of the period described by geologists as Miocene, and can be identified with species of the same period found in Europe, in North-western America, and in Asia. Among them are two kinds of *Equisetum*, poplar, birch, elm, and pine. It was suggested at a meeting of the Geological Society that the bed of lignite in which these remains were met with was in remote ages a large peat-moss, probably containing a lake in which the water-lilies grew, while on its muddy shores the large reeds and sedges and birches and poplars flourished. The drier spots and neighboring chains of hills were probably occupied by the pines and firs, associated with elm and hazel. Among all these which indicate a primeval forest, the only sign of animal life discovered was a solitary wing-case of a beetle. When water-lilies were growing in that now desolate region, fresh water must have filled the ponds and lakes. Captain Feilden's discovery may be taken as additional evidence of a change of climate, which the palæontologists and physiologists who are now discussing that interesting question will not fail to make use of on fitting occasion.

NEW TEST FOR UNDERGROUND WATER.—It

is stated in a French scientific periodical that underground water may be discovered by observing the quivering of the air on a clear, calm summer afternoon when the sun is low. If a well be dug at the spot where the quivering appears, a supply of water will, as is said, there be found. And as regards the influence of trees on moisture, careful observation has confirmed the theory that more rain falls on forests than on open plains; and comparing different kinds of trees it is found that the pine tribe get more water and retain more than leafy trees. Hence, it is said, pines are the best defence against sudden inundations, and the best means for giving freshness and humidity to a hot and dry climate such as that of Algeria, where attempts at amelioration have been made by planting, and by the digging of artesian wells.

THE SOLIDIFICATION OF OXYGEN.—In 1845 the late Professor Faraday delivered a lecture on the solidification of gases at the Royal Institution, and demonstrated his facts by experiments as interesting as they were successful. Under his skilful manipulation a tube filled with olefiant gas, quite invisible, was seen to become partially filled with a colorless liquid, which was the gas in a condensed form. Two conditions were shown to be essential to the result—extreme pressure and extreme cold. The pressure was obtained by strong mechanical appliances, and the cold by means of solidified carbonic acid, which looked like lumps of snow. In this way the lecturer made clear to a general audience the process by which a number of gases had been brought into a liquid or solid form; and he stated that he had 'hoped to make oxygen the subject of the evening's experiment, but from some undetected cause it had baffled his attempts at solidification.' Nevertheless, he looked forward to the time when not only oxygen, but azote and hydrogen would be solidified, and he agreed with Dumas, of the Institute of France, that hydrogen would show itself in the form of a metal. Faraday's anticipation is now realized in one particular, for oxygen has been liquefied. This achievement is due to the enlightened and persevering efforts of Mr. Pictet, an able physicist of Geneva. Working with apparatus capable of resisting a pressure of eight hundred atmospheres, and a temperature sixty-five degrees below zero (centigrade), he succeeded in converting oxygen (invisible) into a visible liquid which spouted from the tube in which it had been enclosed for experiment. It is a feat which involves important consequences for science. It is a further confirmation of the mechanical theory of heat, according to which all gases are vapors capable of passing through the

three states—solid, liquid, and gaseous. Geneva winds up the year with a fine scientific triumph.

ORIGIN OF PETROLEUM.—With a view to account for the presence of mineral oil underground in certain parts of Europe and in Pennsylvania, some ingenious persons have assumed that the oil is a decomposition-product of long-buried organic remains. But the answer to this is that the oil is found in very old strata 'where but few organic remains can have existed.' Mr. D. Mendelejeff, a foreign chemist, having visited the Pennsylvania wells, puts forward his opinion on this interesting question: The substance of the earth having been condensed from vapor, 'the interior of the earth must consist largely of metals (iron predominating) in combination with carbon. Wherever fissures have been produced in the earth's crust by volcanic action, the water, which of necessity made its way into the interior, and thus came into contact with metallic carbides at high temperatures and pressures, must have given rise to saturated hydrocarbons, which have ascended in the form of vapor to strata where they condensed,' and thus formed the oil.

EFFECT OF SEWAGE UPON THE THAMES.—Captain Calver, R.N., has by command of the Admiralty surveyed the Thames below Woolwich to ascertain whether the discharge of the sewage of London into the river has created obstructions in the channel. The captain has published his report, and a very discouraging report it is, for it makes known that shoals have formed, and are forming, which in course of time will completely stop the navigation of the river. In this we have a proof that it is a mistake to send the solid portion of sewage into a stream, in the hope that it will be effectually carried away by the tide. It is not carried away; but is deposited at the bends, and in the eddies, with detriment to health as well as to the water-way.

HYDROPHOBIA IN FRANCE.—M. Proust, at the meeting of the Paris Academy of Medicine on November 6th, read a paper on the results of the official inquiry into cases of hydrophobia observed in France from 1850 to 1876. Its conclusions were as follows: 1. Cauterisation being, up to the present time, the only means known as a prophylaxis against hydrophobia, it is important to obtain statistical information not only of the name of the caustic employed, but the manner in which the cauterisation was made, and the exact time which elapsed between the inoculation with rabies and the moment of cauterisation. 2. As the transmission of the contagium is often effected by little pet dogs, in which the

disease at its outset inspires no mistrust, a memorandum with the object of popularising knowledge of the early symptoms of rabies would be of the greatest utility against this kind of contagion. The dog is not dangerous only when it has lost its reason; it is more treacherous whilst the sentiment of affection is still active, its saliva being already virulent. The widely-spread opinion that canine rabies is always characterised by horror of water is untrue. 3. The sanitary police regulations applicable to canine rabies should be rigorously put into force in the winter as well as in the summer against suspected dogs, as much as against dogs actually in a state of disease. 4. The measures prescribed in these cases should be, the obligatory wearing of a collar, according to police regulation; the seizure of all stray dogs not wearing a collar; destruction of all the dogs so seized, and of diseased dogs; destruction or shutting up of all suspected dogs; also, in case of serious accidents or death of a human being, the proprietor of the dog should be prosecuted by the authorities, without prejudice to any claim which may be made by the families of the injured persons.

THEORY OF DIPHTHERIA.—Dr. Tauszy has published an elaborate paper containing the results of his well-known investigations of the cause and treatment of diphtheria. They may be briefly summarized as follows: Diphtheria is dependent upon minute vegetable organisms, which invade the system through an abraded skin or an abraded and inflamed mucus membrane; that bacteria are easily distinguishable, microscopically, from detritus, fat, or albumen, by the glycerine, acetic acid, and heating test; the contagion of diphtheria is not a gaseous substance; it is most assuredly first a local disease, and, after existing a certain time, becomes general—catarrh, nasal and pharyngeal, one or both, always precedes it, or may be regarded as its first stage; croup and diphtheria are not identical diseases—croup exudations never enter the circulation, and croup always remains a local disease, killing only by mechanical obstruction, of the larynx for instance. Dr. Tauszy adopts Jacobi's opinion, namely, that there is no infectious disease which can be more readily and satisfactorily managed than diphtheria, but, whether mild or severe, it should be attended to at once, without loss of time. In general nasal and pharyngeal catarrh must be cured; hypertrophied tonsils must be expected at a time when no diphtheria prevails; all bloody operation is to be avoided; the other remedies are chlorate of potash, one half-ounce to a dram, internally taken during twenty-four hours, and disinfection.

THE AFRICAN SALT MARSHES.—During recent years, it has been said that the marshes and saltish depressions in the territory of Algiers and other parts of North Africa were once covered by the sea, and schemes have been announced for readmitting the sea by cutting channels from the Mediterranean. Mr. Le Chatelier, a French chemist, says: The existence of the salts is not due to the drying up of a former sea, but to the masses of rock-salt which exist in the mountains. From these the salt is dissolved out by rain or by subterranean waters, and the saline solution percolates the soil to feed the artesian reservoirs which underlie the desert. These observations will require attention from geographers.

DIFFERENCES OF CHEMICAL STRUCTURE AND OF DIGESTION AMONG ANIMALS.—Mr. Hoppe-Seyler, a learned German, has published a paper on Differences of Chemical Structure and of Digestion among Animals, supported by numerous examples, which show that according to the organism so is the power to form differences of tissue; and he sums up thus: "Looking at the question broadly, we find that the chemical composition of the tissues and the chemical functions of the organs present undoubted relations to the stages of development, which show themselves in the zoological system, as well as in the early stages of development of each individual higher organism. These relations deserve further notice and investigation, and are qualified in many respects to prevent and correct errors in the classification of animals. It is generally supposed that the study of development is a purely morphological science, but it also presents a large field for chemical research." This concluding sentence is significant, and should have serious consideration.

THE EFFECT OF LIGHT UPON ORGANISMS.—Since the outbreak of discussion on spontaneous generation and the germ theory, many readers have become familiar with the term Bacteria, by which certain minute organisms are described. The question involved may be studied from different points of view, as appears from a communication addressed to the Royal Society by Dr. Downes and Mr. Blunt, a chemist, on the Effect of Light upon Bacteria and other organisms. Properly prepared solutions were inclosed in glass tubes; some of the tubes were placed in sunlight, others were covered with paper or some material that excluded light. The dark tubes became turbid; the light tubes remained clear. The experiments modified in various ways were continued from April to October; and the conclusions that the experimentalists came

to were that—Light is inimical to the development of Bacteria and the microscopic fungi associated with putrefaction and decay, its action on the latter being apparently less rapid than upon the former—That the preservative quality of light is most powerful in the direct solar ray, but can be demonstrated to exist in ordinary diffused daylight—and That this preservative quality appears to be associated with the actinic rays of the spectrum. 'It appears to us,' say the two gentlemen, 'that the organisms which have been the subject of our research may be regarded simply as isolated cells, or minute protoplasmic masses specially fitted by their transparency and tenuity for the demonstration of physical influences. May we not expect that laws similar to those which here manifest themselves may be in operation throughout the vegetable, and perhaps also the animal kingdom, wherever light has direct access to protoplasm? On the one hand, we have chlorophyll (coloring substance of leaves, etc.) owing its very existence to light, and whose functions are deoxidising; on the other, the white protoplasm or germinal matter oxidising in its relations, and to which, in some of its forms at least, the solar rays are not only non-essential, but even devitalising and injurious. This suggestion,' continued the gentlemen, 'we advance provisionally and with diffidence; nor do we wish to imply that the relations of light to protoplasmic matter are by any means so simple as might be inferred from the above broad statement.'

VARIETIES.

THE VARIATION OF LEAVES.—The variegation of leaves occurs so commonly that we do not often inquire into the cause of it. To the physiologist, however, the question of the origin of variegation is of considerable importance, and it certainly is not less so to the horticulturist, whether pleasure or profit be the main end of his endeavors. The normal coloring of leaves, whatever it may be, does not come directly into the consideration. A plant may produce red, purple, bronze, or blue leaves, and they may be as proper to it—that is to say, as natural and necessary—as any of the tints of green that more commonly prevail in leaf coloring. By "variegation" must always be understood abnormal coloring, the most common forms of it being bands, blotches, edgings, and splashes of creamy white, or olive grey, or yellow, of several shades more or less intermixed with the normal green common to the plant when it is not variegated. The variations of variegation are endless, but there appears to be a common

cause for them all, that cause, whatever it may be, operating in a variety of ways, so that in one case it results in white, grey, or creamy colored variegation; and in another case in amber, gold yellow, or even deep orange-colored variegation; the selfsame species of plant being, perhaps, the subject of its diverse operations. The ivies, hollies, and Japanese euonymus afford examples familiar to all, and are admirably adapted as material for the study of the subject. A vague application of the term "disease" is commonly accepted as explaining the cause of variegation. Notions that pass current in the world are more often sound than otherwise, and there is very much to be said in behalf of the explanation. Still it remains to determine the nature of the disease, and, if possible, give it a name. In one view of the case we may be disposed to regard it as a kind of chlorosis, and in another as unmistakable etiolation. Usually it causes, or is accompanied, or is followed by a diminution of the vigor of the plant, but some variegated plants grow as freely as others of the same species that are not variegated, and generally speaking the vigor diminishes in proportion to the degree of etiolation, so that a growth purely white cannot be propagated, and soon passes away. That the variegated portion of a leaf has less vigor than the green part is suggested by the often wrinkled appearance of it, the result of a more rapid growth of the green centre than the variegated margin. This suggests that defective assimilation, the result of debility, is the primary cause of variegation, a view of the case largely supported by the experience of cultivators, who have often produced variegation by starving a plant, and effaced variegation by liberally feeding it.—*The Gardener's Magazine*.

THE FIRST ENGLISH TRAGEDY.—The first English tragedy, "Gorboduc," was written for the Christmas festivities of the Inner Temple in the year 1561, by two young members of that Inn—Thomas Norton, then twenty-nine years old, and Thomas Sackville, then aged twenty-five. . . . There was a reason for their choice of subject. Elizabeth had not been long upon the throne. Before her accession England had been a house divided against itself by strong conflicts of opinion. Elizabeth was queen of a divided people. In her first speech from the throne she said that her desire was to "secure and unite the people of this realm in one uniform order, to the honor and glory of God, and to general tranquillity," and spoke of "concord and unity, the very marks which they were now to shoot at." But unity was hard to attain. When she had been queen not quite a year, the Spanish ambassador reported from London to the

Count de Feria, "It is the devil's own business here. But the Catholics grow stronger daily; and the heretics are quarrelling with one another so bitterly that they have forgotten their other enemies." To say nothing of other jarring notes, in August, 1561, Mary Stuart landed in Scotland. Sackville and Norton, therefore—one of them a young poet with the aspirations of a statesman, the other a man intensely interested in the contest against Roman Catholic influence—resolved to present before their audience of privy councillors, lawyers, and other foremost men, a play that should urge with all possible force "concord and unity" as the very mark at which a nation must shoot. Their patriotic purpose was to insist on the queen's thought, by writing a play that should dwell throughout upon the danger hanging over any nation that is as a house divided against itself. . . . The play was received with great applause. Lord Robert Dudley, high in honor at that particular grand Christmas in the Inner Temple, and first favorite of the queen, would add his witness to the common report of that zeal for the welfare of England which had caused the writers of the play to insist with all their might upon concord and unity as the very mark at which good Englishmen should aim. The queen, therefore, added to the lesson all emphasis in her power by commanding the play to be repeated about a fortnight later—that is to say on the 18th of January, 1562 (new style) before herself and her court at Whitehall. It thus had the conspicuous success that, in a new thing, always suggests imitation. A contemporary MS. note says of the performance before Queen Elizabeth that, "on the 18th of January, 1561 (new style, 1562), "there was a play in the Queen's hall, Westminster, by the gentlemen of the Temple after a great mask, for there was a great scaffold in the hall, with great triumph as has been seen; and the morrow after the scaffold was taken down."—*Library of English Literature*, edited by Professor Henry Morley.

SIBERIAN MINES.—The exiles who live in the mines are convicts of the worst type and political offenders of the best. The murderer for his villany, the intelligent and honest Polish rebel for his patriotism, are deemed equally worthy of the punishment of slow death. They never see the light of day, but work and sleep all the year round in the depths of the earth, extracting silver or quicksilver under the eyes of taskmasters who have orders not to spare them. Iron gates, guarded by sentries, close the lodes, or streets, at the bottom of the shafts, and the miners are railed off from one another in gangs of twenty.

They sleep within recesses hewn out of the rock—very kennels—into which they must creep on all-fours. Prince Joseph Lubomirski, who was authorized to visit one of the mines of the Oural at a time when it was not suspected he would ever publish an account of his exploration in French, has given an appalling account of what he saw. Convicts racked with the joint-pains which quicksilver produces; men whose hair and eyebrows had dropped off, and who were gaunt as skeletons, were kept to hard labor under the lash. They have only two holidays a year, Christmas and Easter; and all other days, Sundays included, they must toil until exhausted nature robs them of the use of their limbs, when they are hauled up to die in the infirmary. Five years in the quicksilver pits are enough to turn a man of thirty into an apparent sexagenarian, but some have been known to struggle on for ten years. No man who has served in the mines is ever allowed to return home; the most he can obtain in the way of grace is leave to come up and work in the road gangs, and it is the promise of this favor as a reward for industry which operates even more than the lash to maintain discipline. Women are employed in the mines as sifters, and get no better treatment than the men. Polish ladies by the dozen have been sent down to rot and die, while the St. Petersburg journals were declaring that they were living as free colonists; and, more recently, ladies connected with Nihilist conspiracies have been consigned to the mines in pursuance of a sentence of hard labor. It must always be understood that a sentence of Siberian hard labor means death. The Russian Government well knows that to live for years in the atrocious tortures of the mines is humanly impossible, and, consequently, the use of a euphemism to replace the term capital punishment is merely of a piece with the hypocrisy of all official statements in Russia. Once a week a pope, himself an exile, goes down into the mines to bear the consolations of religion, under the form of a sermon enjoining patience. By the same occasion he drives a little trade in vodka. The miners, who live habitually on tschi and black bread, are allowed a kopeck for a good day's work; and this sum invariably goes in drink. Perhaps the raw, rancid spirit serves to keep up their strength; anyhow, the intoxication it brings on affords the unfortunates the only dreg of comfort they can expect on this earth. One shudders to think of the state of the better educated men who refuse the consolation of occasionally drowning their sorrows in liquor. What must be the plight of professors, journalists, landowners, who have

been condemned to die by inches for the crime of emitting Liberal opinions, which in England bring a man to great honor and comfort on every side? Perhaps those English Liberals who feel kindly towards Russian humanitarianism would pick up a notion or two if they could interview some of their Muscovite colleagues earning the reward for their progressive theories underground, with a drunken priest to whine them homilies.—*Pall Mall Gazette*.

INSECT TALKING.—“Two ants,” says Büchner, “when they are talking together stand with their heads opposite each other, working their sensitive feelers in the liveliest manner, and tapping each other’s heads.” Numerous examples prove that they are able in this way to make mutual communications, and even on certain definite subjects. “I have often,” says the English naturalist Jesse, “placed a small green caterpillar in the neighborhood of an ants’ nest. It is immediately seized by an ant, which calls in the assistance of a friend after ineffectual efforts to drag the caterpillar into the nest. It can be clearly seen that the little creatures hold a conversation by means of their feelers, and this being ended they repair together to the caterpillar in order to draw it into the nest by their united strength. Further, I have observed the meeting of ants on the way to and from their nest. They stop, touch each other with their feelers, and appear to hold a conversation, which I have good reason to suppose refers to the best ground for obtaining food.” Hague writes in a letter to Darwin that he one day killed with his finger a number of ants who came every day from a hole in the wall to some plants standing on the chimney-piece. He had tried the effect of brushing them away, but it was of no use, and the consequence of the slaughter was that the ants who were on the way immediately turned back and tried to persuade their companions who were not yet aware of the danger to turn back also. A short conversation ensued between the ants, which, however, did not result in an immediate return, for those who had just left the nest first convinced themselves of the truth of the report.—*Leisure Hour*.

AGATES.—According to Professor Ruskin, some agates appear to be of the nature of concretions formed from within, round a nucleus; these would consist of chalcedony or jasper in the inner portions, and have distinctly crystallized exteriors. There is another class of agates composed of external bands of chalcedony or jasper, stalactitically deposited in a cavity which may either have a hollow centre, or one filled up with crystals of quartz.

There appear, however, to be intermediate varieties in which concretionary or stalactitic formations have been combined with, or interrupted by, other modes of growth. Some of the most curious and beautiful agates are those containing dendritic crystallisations; in these, we see, in the more or less transparent chalcedony, which in these agates is not banded, wonderful mossy or confervoid-like growths, often very closely resembling vegetable forms. The valuable stones from Mocha contain ferruginous brown or black inclosures, whilst some of the dendritic agates from India are filled with a bright green network of what appear to be filaments of confervæ. These dendritic forms in the moss agates are mostly the oxides of iron or manganese; or in the green Indian pebbles, delessite or chlorite. The question of their origin is a difficult one. In some agates the dendrites may have resulted from a segregation of the oxides of the metals from the colloid or partially crystallised silica; in other cases they may be the effect of subsequent infiltrations; or, again, the quartz may have been consolidated around previously existing crystallisations. With regard to infiltration by these oxides, it is well known that even the most compact-looking chalcedony is permeable, as it is possible by steeping it in solutions of the aniline or other dyes to impart the most brilliant tints to agates, the dye undoubtedly gaining access to the interior of the specimen through the interspaces of its minutely crystalline structure. In a large group of agates, of which beautiful specimens come from India, an appearance of banded formation is seen, which, upon microscopic examination, resolves itself into an infinite number of red or brown spots, regularly arranged in bands or concentric groups: these spots appear to be segregations of oxide of iron. I have not seen a specimen of this species of agate cut sufficiently thin to show whether the arrangement of these minute spots is dependent upon a banded structure in the chalcedony itself, or whether it is independent and the result of molecular force which has determined the arrangement in question. It may here be noticed that a vast number of the Indian agates come from the neighborhood of the Gulf of Cambay. Near Turkeysar there are agate conglomerates intercalated between beds of laterite which belong to the Eocene period. These conglomerates we may suppose to have been derived from the denudation of the earlier igneous rocks which abound in the same district. Uruguay in South America, also produces a large number of remarkably fine banded agates.—*Hardwicke’s Science Gossip*.

INFLUENCE OF GASLIGHT UPON THE EYES.—The verdict of a scientific deputation for medical purposes has been presented to the Prussian Minister of Education. *Lithographia* extracts the following, which refers to living and study rooms, but is equally applicable to printing offices, factories, etc.: "According to the previous experiences of oculists, no injurious effects of gaslight upon the eyes of pupils has been observed when it has been used properly, and especially where arrangements are present to protect the eyes from the direct influence of the bright flame. In general, shades and globes serve for this purpose. The dark, totally opaque tin shades are, however, very injurious, and all complaints against the use of gaslight are referable almost universally to these improper contrivances. With these, the eye stays in total darkness, but looks upon a brightly-illuminated surface, so that a dazzling and over-irritation or super-excitement of the eye results, with all its attendant injurious effects. Very suitable are the globes of milk glass, which diffuse the light more, and the eye is not injuriously affected. Experience shows that more heat is generated by gaslight, hence the gas flames must not be brought too near the head, because the radiant heat which it sends out might cause headache and congestion of the brain. Where several persons are using the same flame, the source of light has to be higher up, so that the unpleasant effect of the radiant heat disappears, especially if the so-called "plate" illumination is used, which consists of a large funnel-shaped globe of milk glass closed beneath by a plate, whereby the descending rays suffer a proper diffusion and loss of intensity, and at the same time the flickering of the flame by breaths of air is avoided, and a more steady and quiet source of light is secured. Under special circumstances, where the eyes are particularly sensitive, chimneys of a blackish-blue color may be employed. Under such precautions an injurious effect of gaslight upon the eyes is not to be feared in the least.

RUSSIAN PROVERBS :—

The wolf asked the goat to dinner ; but the goat declined.

A fox sleeps, but counts hens in his dreams.

The wolf changes his hair every year, but remains a wolf.

Dog, why do you bark ? To frighten the wolves away. Dog, why do you keep your tail between your legs ? I am afraid of the wolf.

Love, fire, and a cough cannot be hid.

Make friends with a bear, but keep hold of the axe.

Measure ten times, you can cut only once.
Every thing is bitter to him who has gall in his mouth.

Bread and salt humble even a robber.

A full stomach is deaf to instruction.

If you hunt *two* hares you will catch neither.

God is not in haste, but His aim is sure.

You may shut the door on the devil, but he will enter by the window.

Praise not the crop until it is stacked.

The devil when old becomes a monk.

It is not necessary to plough and sow fools—they grow of themselves.

With God go even over the sea ; without Him not over the threshold.

Truth is not drowned in water, nor burned in fire.

A fool may throw a stone into a pond ; it may take seven sages to pull it out.

No bones are broken by a mother's fist.

Many will give advice ; few give help.

To whom God gives employ, He gives understanding.

Whose bread and whose salt I eat, His praises I sing.

A good conscience is God's eye.

Lies march on rotten legs ; who lies will steal.

When you walk, pray once ; when you go to sea, twice ; when you go to be married, three times.—*Clergyman's Magazine*.

VALENTINE'S DAY, 1873.

(An unpublished poem.)

Oh ! I wish I were a tiny brown bird from out the south,
Settled among the alder-holts, and twittering by the stream :

I would put my tiny tail down, and put up my tiny mouth,

And sing my tiny life away in one melodious dream.

I would sing about the blossoms, and the sunshine and the sky,

And the tiny wife I meant to have in such a cosy nest ;
And if some one came and shot me dead, why then I could but die,

With my tiny life and tiny song just ended at their best.

(CHARLES KINGSLEY)

A POET'S PROEM.

If on the great world's wide and shifting sand
I scrawl my meagre alphabet of song,

What profit have I, think you ? Not for long
The pride of its enduring. Time's rough hand
Sweeps all of shadowy fabric from the strand !

So children work upon the tideless shore, ;

So poets build their pomp. The fresh tides roar,
And desolate the glory each had planned.

Then whereof comes requital ? Here and there

Our life's horizon clouds with new regrets ;

Our palaces dissolve in thinnest air,

Shiver to dust our loftiest minarets.

Yet, childlike, work we ever on the shore,—

Reap joy in building, and expect no more ! W. W.

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